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TEAM CATHERINE OR TEAM ANNE?

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THE INDUSTRIAL REVOLUTION

The age of innovation that gave birth to the modern world

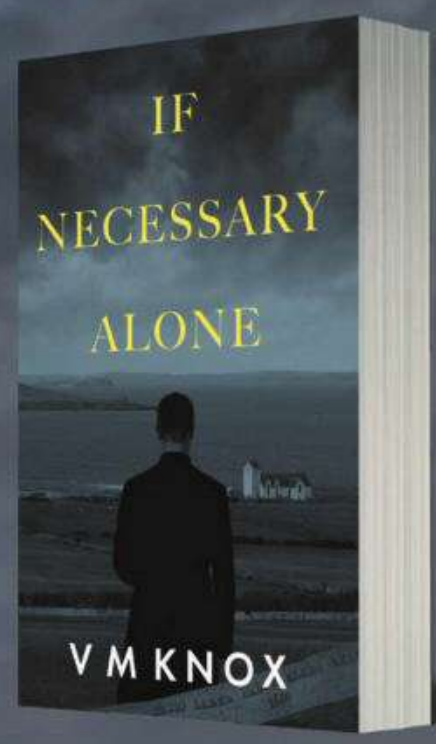
WHAT IF...
THE FRENCH REVOLUTION HAD FAILED?

ISSUE 104 / FEBRUARY 2022 / £5.50

PLUS Q&A: Did gangsters hide guns in violin cases? Who invented canned food?

Intrigue, Murder, Revenge and Embedded Nazi Spies

In Spite of All Terror is the first in a series of crime thrillers by V M Knox that mix historical fact, crime fiction and superb characterisation. Set in September 1940, when Britain stood alone against an imminent Nazi invasion, Reverend Clement Wisdom and other men from the restricted occupations, were called to join the covert Auxiliary Units. Following the murders of several of Clement's team, he finds himself embroiled in the murky world of espionage where things are never what they seem.



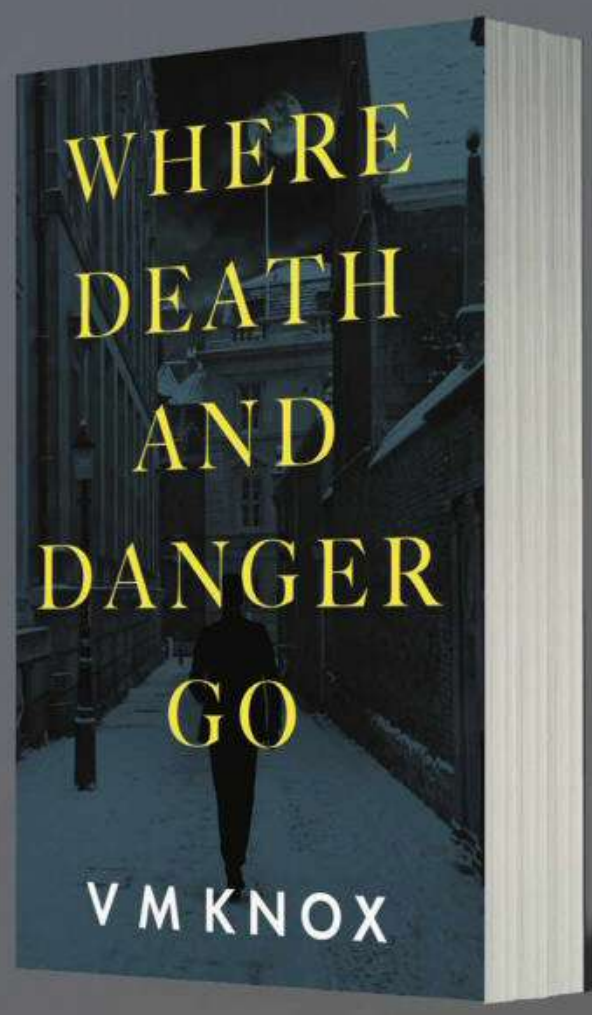
If Necessary Alone is the second thriller in this World War II crime series. Clement Wisdom, now a Major in Special Duties Branch, Secret Intelligence Service, is sent to remote Caithness to investigate illicit encrypted radio transmissions. As soon as he arrives there, an out-station wireless operator is found brutally murdered and Clement becomes entangled in a web of death and silence. Alone, and in the bitter Scottish winter, Clement must stay one step ahead of a killer if he is to remain alive.

Where Death and Danger Go is the third book in this World War II crime series. Set in the dark days of 1941, Britain fights on alone. Fear hangs in the air. Some yearn for peace and an end to the relentless Nazi bombing. Others are spurred on to fight. And some will manipulate a divided country for their own ends.

On a winter's night, a German spy parachutes into Cambridgeshire while another man is secretly murdered in the same field. Is he another enemy spy or has he been sent to his death? Either way, a killer lurks.

Major Clement Wisdom of Special Duties Branch of the SIS is sent to discover the dead man's identity and uncovers a sinister network of conspiracy where kidnap, murder and revenge threaten not only the safety of the nation but also Clement's life.

Released 5th November 2020



All three books can be purchased from online book sellers, Waterstones and independent book shops.

WELCOME FEBRUARY 2022

The Industrial Revolution transformed Britain's landscape, as seen in this 1887 engraving of Cornish copper factories

The 18th and 19th centuries saw Britain enter an era of intense technological and social change – a period that is often referred to as the Industrial Revolution. **Manufacturing processes evolved radically as new inventions and increasingly advanced machinery transformed factory working, helping to create the modern world as we know it.** The period witnessed huge developments in transportation and communication, too, as well as massive increases to the populations of cities like London, Manchester, Glasgow and Liverpool. This month, with the help of Professor Emma Griffin, **we explore the impact of the Industrial Revolution in both Britain and globally**, and examine the many consequences of industrial change – from the use of child labour, to women in the workplace. Start reading from page 28.

Elsewhere, historian **Dr Tessa Dunlop shares the incredible stories of some of the last female veterans of World War II**, who served king and country as members of the Auxiliary Territorial Service in Britain and overseas (*page 64*).

Also this month, we **look at the secrets contained within an exquisite book of hours that once belonged to Henry VIII's doomed second wife, Anne Boleyn**, and explore what it can tell us about the similarities between Anne and her predecessor and supposed rival Catherine of Aragon (*page 56*).

Plus, we delve into the fascinating history of China's famous Terracotta Warriors (*page 21*), and **discover what might have happened had the French Revolution failed** (*page 70*).

See you next month!

Charlotte Hodgman
Editor

THIS MONTH'S BIG NUMBERS

2
The number of golf balls left on the Moon after Alan Shepard played a round during the 1971 Apollo 14 mission

15
The average age of death for a factory worker living in Liverpool in 1840

8,000
The estimated number of Terracotta Warriors guarding the tomb of Chinese emperor Qin Shi Huang

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▲ The hidden messages in a 16th-century masterpiece

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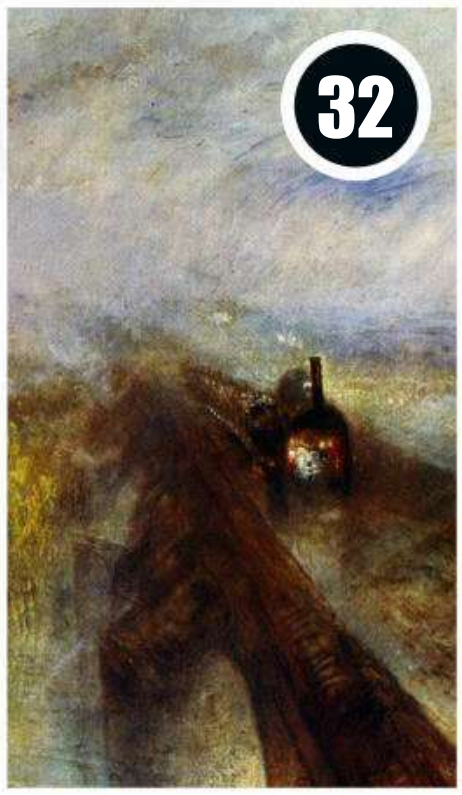

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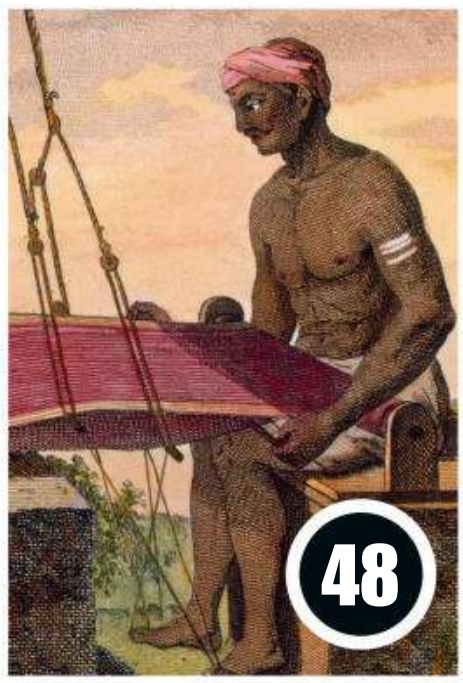

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▲ Why Napoleon would not have risen to power without the French Revolution

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SNAPSHOTS

1937
HANGING OUT

This baby may be all smiles, but that is surely because they can't understand the precarious position they are in: placed in a wire cage hanging out of a window several floors up. Portable 'baby cages' such as this – patented by American Emma Read – were marketed to parents with no outdoor space as a good way to give their babies some fresh air and sunlight. That was enough to convince members of the Chelsea Baby Club living in overcrowded, high-rise-filled London, many of whom were happy to be given baby cages in the 1930s. Even future First Lady Eleanor Roosevelt was said to have been a fan – as a young mother, she reportedly hung a baby cage out of the window of her New York City apartment for her daughter, Anna, until a concerned neighbour threatened to contact the authorities.

GETTY IMAGES

SNAPSHOTS

1922 OPEN SESAME

Anticipation, and some trepidation, spreads through a group of observers as they look down at a once-in-a-lifetime archaeological discovery: the entrance to Tutankhamun's tomb. Beneath them, British Egyptologist Howard Carter talks to Lady Evelyn Herbert, daughter of his financial backer Lord Carnarvon, who is seen heading down the steps into the long-lost tomb. For years, Carter had searched for the young pharaoh's final resting place in the Valley of the Kings to no avail, but in early November 1922, he had finally unearthed the entrance. By the end of the month, the tomb had been opened and found to be miraculously undisturbed by three millennia of grave robbers.

GETTY IMAGES

SNAPSHOTS

1929 CATCH ME IF YOU CAN

Thrilled schoolboys (and some big kids at the back) swarm around Malcolm Campbell's record-breaking car, the Napier-Campbell *Blue Bird*. Although the British racing motorist had topped 200mph the previous February, by 1929 he no longer held the land-speed record, so he took the *Blue Bird* onto a huge dry lake in South Africa in April 1929 for another attempt. Despite reaching a top speed of 224mph, Campbell was unable to win back the record and had to return to the drawing board. By 1935, an updated version of the *Blue Bird* would be the first car to go over 300mph.

GETTY IMAGES

THINGS WE LEARNED THIS MONTH...

RECENT HISTORY HEADLINES THAT CAUGHT OUR EYE

DIG UNCOVERS EVIDENCE OF ROMAN CRUCIFIXION

The first known example of a Roman crucifixion in Britain has been discovered at a building site in Cambridgeshire. Archaeologists carrying out excavations ahead of a new housing development in Fenstanton found the skeleton of a man with a nail embedded in his right heel bone, indicating that he was killed by the brutal execution method. Elsewhere, signs of infection and inflammation on the man's leg bones suggest he may have been bound or shackled before his death. The skeleton, which was one of 45 sets of human remains discovered at the site, is believed to have been buried during the third or fourth century AD. To date, only three other examples of crucifixion from this period have been found worldwide – in Italy, Egypt and Jerusalem.

RIGHT: **The remains of the crucified male excavated by archaeologists in Fenstanton, Cambridgeshire. A nail is still embedded within the skeleton's right heel bone (*below right*)**

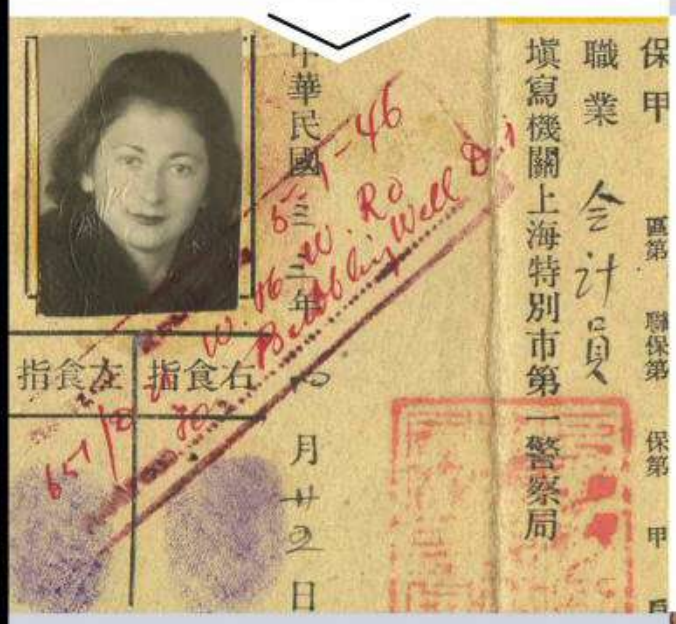
ABOVE: **The site was found to contain five Roman cemeteries, with a total of 45 skeletons**

BELOW LEFT: **Archaeologists also discovered fragments of pottery alongside the graves**

JJ MAC LTD X1, ALBION ARCHAEOLOGY & ADAM WILLIAMS X2, ALBION ARCHAEOLOGY X1, WIENER HOLOCAUST LIBRARY COLLECTIONS X1, JON KEMPNER X1

NEW MAP CHARTS JOURNEYS OF REFUGEES WHO ESCAPED NAZIS

The stories of people who fled Nazi persecution and anti-Semitism during the 20th century have been added to an online map, created by the Wiener Holocaust Library in London. Drawing on the library's vast collection of diaries, identity papers, photographs and other documents, each 'marker' pinned on the map reveals information about the routes that refugees took while attempting to escape Nazi-controlled countries such as Germany, France and Austria. To access the resource free of charge, visit *refugeemap.org*.



ARCHAEOLOGISTS FIND AZTEC ALTAR

An Aztec altar used during rituals honouring the dead has been unearthed in Mexico City. The structure, which was found in the courtyard of an Aztec home alongside ceramic figures (*pictured*), incense burners and a pot containing human ashes, is thought to have been owned by a wealthy family, who would have incorporated it into their religious ceremonies. Experts believe the altar may have been buried on purpose to prevent it falling into the hands of Spanish conquistadors after the capture of Tenochtitlán in 1521.

ROMAN MOSAIC UNEARTHED IN RUTLAND

A lavish mosaic, depicting events in Homer's epic poem *The Iliad*, has been discovered beneath a farmer's field in the East Midlands. The Roman-era find, which shows the Greek hero Achilles in battle with Hector during the Trojan War, was excavated in Rutland by the University of Leicester Archaeological Services, which previously hit the headlines in 2013 for helping to uncover the remains of Richard III. The 11m x 7m mosaic was found nestled within the foundations of a wider villa complex, which is believed to have been constructed during the third or fourth century AD.

£400,000

The estimated sale price of 131 Anglo-Saxon gold coins found in Norfolk – the largest hoard of its kind found in Britain to date

NIGHTINGALE'S LAMP GOES ON DISPLAY

A lamp that once belonged to nursing pioneer Florence Nightingale has gone on public display at the British Red Cross's headquarters in London. The 19th-century artefact (*bottom right*), takes pride of place within the charity's new permanent exhibition, The Museum of Kindness, which shines a light on objects representing humanity and resilience during wartime. Other treasures on view include a quilt made by female prisoners of war in Singapore during World War II, embroidered with coded images intended for male family members who were being held separately (*top right*).

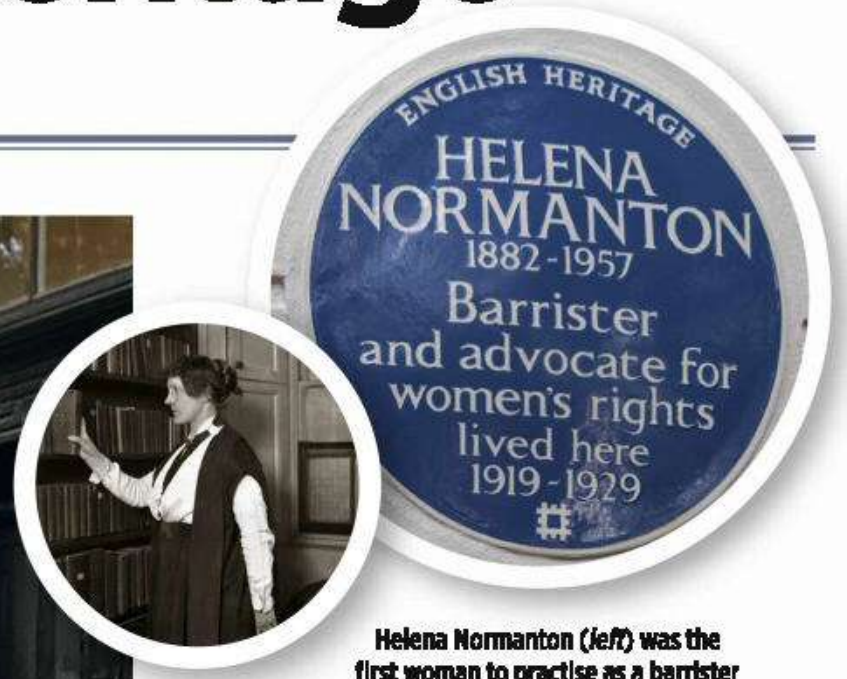
ABOVE: **Howard with his father at the unveiling of the blue plaque for broadcaster Edward R Murrow (*seen in London, top left*)**

LEFT: **Laurie Cunningham, shown here in 1980, was the first black footballer to play for England in a competitive international match. A blue plaque (*pictured far left*) was unveiled outside his former home in Haringey in 2016**

GETTY X3, ENGLISH HERITAGE X3, ROBIN KEYS

Blue plaques historian at English Heritage

Howard Spencer



Helena Normanton (*left*) was the first woman to practise as a barrister in England, and has recently been honoured with a blue plaque

WHAT IS THE BLUE PLAQUE SCHEME AND HOW DID IT START?

The English Heritage blue plaques scheme which runs in London marks the links between famous people and the buildings in which they lived or worked. On occasions, plaques are also used to denote other interesting historical associations that wouldn't otherwise be obvious, such as the house where the Pre Raphaelite Brotherhood of artists was founded in 1848. The plaque scheme that English Heritage runs dates back to 1866; it was William Ewart MP, otherwise known as a pioneer of public libraries, who first aired the idea of inscribing "on those houses in London which have been inhabited by celebrated persons, the names of such persons".

HOW DID YOU BECOME INVOLVED WITH THE BLUE PLAQUE SCHEME?

I saw a job advertised, applied, and got it! What helped me was probably my previous work as a research editor on the *Oxford Dictionary of National Biography*, and for the History of Parliament project. I've always had a strong interest in architectural history and conservation. The preservation of buildings has always been part of the intention with blue plaques, on the basis that if you let people know that a building has an interesting historical association, they are less likely to quietly allow a wrecking ball to smash through it.

WHAT DOES YOUR ROLE AS SENIOR BLUE PLAQUES HISTORIAN ENTAIL?

I either research or commission research on the suggestions for blue plaques that come in from the public. I also write about the existing plaques and the people building links they commemorate for example, in *The English Heritage Guide to London's Blue Plaques*, the walk-around guidebook that I edited.

HOW ARE BUILDINGS AND PEOPLE CHOSEN TO HAVE A BLUE PLAQUE?

Pretty well all the plaques originate with a suggestion from a member of the public. The ideas are researched and assessed for viability, and then selected by a panel of experts. The building

> "If you let people know a building has an interesting historical association, they are less likely to quietly allow a wrecking ball to smash through it"

is chosen for the strength of its link with the person commemorated, while also taking into account whether siting a plaque would damage the building's aesthetics, and whether it can be placed where people can actually see it.

OF THE HUNDREDS OF PLAQUES IN LONDON, DO YOU HAVE A FAVOURITE?

It's always the last one to go up! That was to Helena Normanton, who broke a few glass ceilings in the legal profession. Other than that, I'd mention the plaque to the American broadcaster Edward R Murrow, which is in Hallam Street just north of BBC Broadcasting House. That was the first case I researched, and I was able to attend the unveiling with my father, John, who passed away in 2015. He remembered Murrow's wartime broadcasts and was instrumental in getting me interested in history and building heritage in the first place. Another one that meant a lot to me, as a football fan, was the plaque to Laurie Cunningham; I got to meet Mark Bright, one of my sporting heroes.

IF SOMEONE THINKS A BUILDING IS WORTHY OF A BLUE PLAQUE, WHAT SHOULD THEY DO?

Firstly, they should visit the English Heritage website (*english heritage.org.uk*) and see if the idea meets the conditions of acceptance, the most important of which are that figures suggested must have died at least 20 years ago, and that the building should be original (the one that they actually lived or worked in). The nominee must also in the view of our panel, and the words of the selection criteria have made "some important positive contribution to human welfare or happiness". We can only put around 12 plaques up per year, so by necessity it's a selective and competitive process, but there is nothing to be lost by making an application.

HOWARD SPENCER is the senior blue plaques historian for English Heritage and editor of *The English Heritage Guide to London's Blue Plaques* (September Publishing, revised 2019). Find out more at e*nglish-heritage.org.uk/visit/blue-plaques*

The last invasion of mainland Britain

Words: Rhiannon Davies

Two hundred and twenty five years ago, the last invading force landed on mainland British soil. A ragtag group of French ex convicts, royalist prisoners, republicans and Irish officers had sailed to southwest Wales, intent on sparking revolution, but their invasion attempt was stamped out in two days thanks in part, it's believed, to the fashion choices of a group of Welsh women.

France had originally decided to mount a three pronged invasion of Britain. Around 15,000 men would be shipped off to Ireland, to lend their might to the country's republicans. Two more modest groups of troops would be sent to northern England and southern England, to stir up trouble and persuade the poor to rise up against the upper classes.

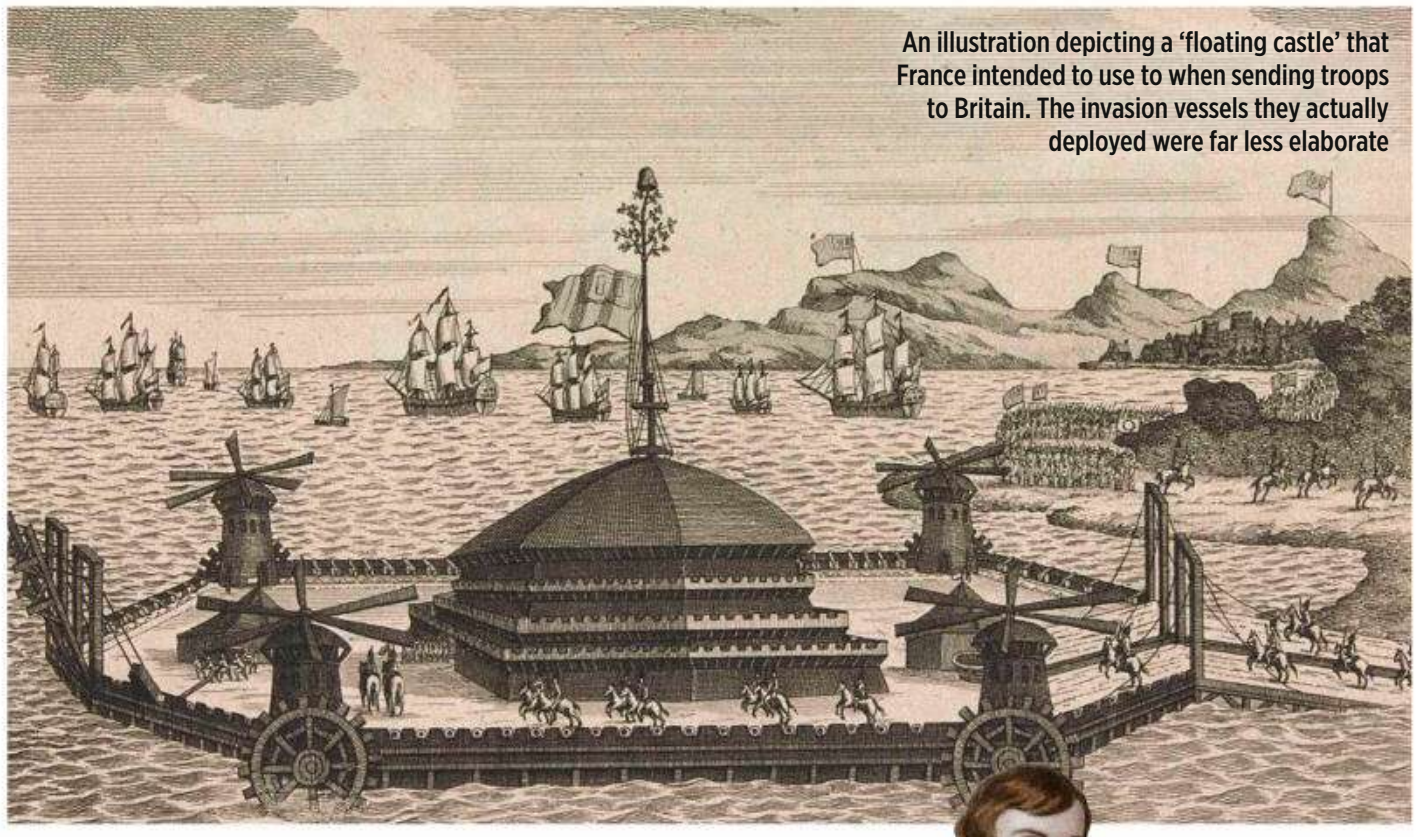
However, the plan proposed by General Lazare Hoche and the Directory (France's revolutionary government) came unstuck almost immediately. The soldiers who were sent to Ireland arrived in December 1796, but they were soon battered by terrible storms and forced to return to France. The northern attack, too, came unstuck, though this time unruly troops were to blame as well as the weather.

It all depended, then, on the last, southern attack. Around 1,400 troops sailed from France in February 1797, under the leadership of an Irish American colonel called William Tate. The soldiers were first meant to secure Bristol, and then head north through Wales to take Chester and Liverpool. Many of the troops had been given British uniforms seized earlier in the war that the French had then dyed a dark brown. This gave them their nickname of 'La Légion Noire', meaning 'The Black Legion'. They were also armed to the teeth.

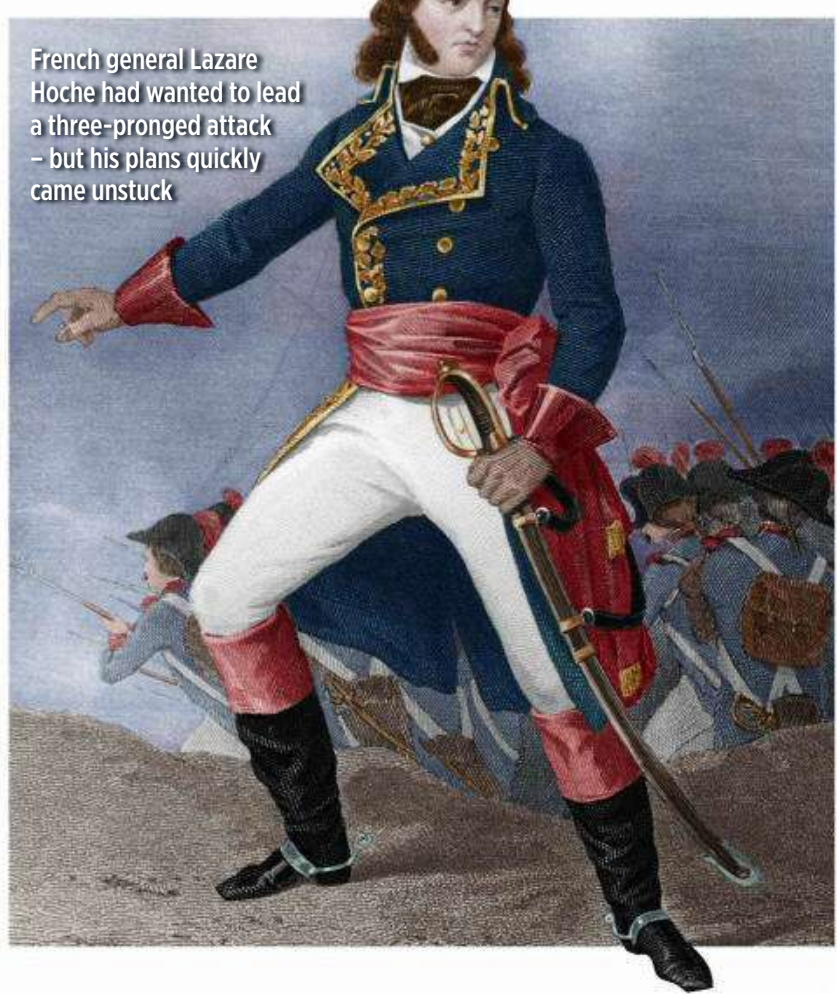
But Hoche's carefully laid plan again had to be abandoned. Tate's forces had left France as planned, travelling in four ships commanded by Commodore Jean Joseph Castagier. The warships sailed under Russian colours, so as not to arouse suspicion, but the weather again proved the French's undoing. Strong winds and fierce tides meant Castagier's ships couldn't sail into Bristol. Would Tate be forced to scurry back to France, before the invasion had even begun?

Luckily, they had a plan B. The warships sailed across the Bristol Channel to Cardigan Bay, and Tate and his troops were dropped off in Wales. But they had been spotted several times during their journey, and the authorities were on to them. When they sailed into Fishguard Bay on 22 February, the local fort set off its cannon a warning signal to the local people.

Unperturbed, the French sailed on, and that afternoon dropped anchor off Carreg Wastad, a headland three miles away from Fishguard. They worked throughout the night, bringing 17 boatloads of troops, 47 barrels of gunpowder, 2,000 stands



An illustration depicting a 'floating castle' that France intended to use to when sending troops to Britain. The invasion vessels they actually deployed were far less elaborate



French general Lazare Hoche had wanted to lead a three-pronged attack – but his plans quickly came unstuck

GETTY IMAGES X2, ALAMY X3

> “Why should they obey their officers, the troops wondered, when there were villages around them ripe for looting?”

ABOVE: **An actor dressed as Welsh heroine Jemima Nicholas, who is said to have captured 12 Frenchmen while armed with a pitchfork**

TOP LEFT: **Cannons mark the site of Fishguard’s former fort, which first alerted locals to the French invasion force**

TOP RIGHT: **John Campbell, 1st Baron Cawdor, led Britain’s defensive efforts and forced the enemy into a humiliating surrender**

of arms and 50 tonnes of cartridges and grenades onto land. The Black Legion had made history they were the last enemies to successfully land on mainland British soil.

DISORDERLY CONDUCT

Under the leadership of Lieutenant St Leger, an Irishman, a company of grenadiers quickly advanced a mile inland and commandeered Trehowel Farm, which Tate used as his main base. Other local strongholds were taken, too; by securing the high ground above Fishguard, the French had secured an excellent defensive position.

But they didn’t hold the upper hand for long. Although some of their number were regular troops, committed to the cause, the rest were far less reliable, with many having recently been released from prison. Why should they obey their officers, they wondered, when there were villages around them ripe for looting, and houses stocked with food and alcohol?

The allure proved too strong to ignore. Many of the irregular soldiers deserted, pillaging local settlements. Armed scuffles broke out; several locals and French soldiers were killed.

The troops who had stayed faced a new problem. The British had been alerted to the presence of the invaders, and hurriedly gathered a group of fighters to defend their soil. In Fishguard itself the commander of the Fishguard and Newport Volunteer Infantry, Lieutenant Colonel Knox, amassed the town’s men, and other locals flocked to Fishguard to support the militia.

Meanwhile, further south in Haverfordwest, Lieutenant Colonel Colby brought together a group of approximately 350 men, 150 of whom were sailors. John Campbell, 1st Baron Cawdor and captain of the Castlemartin troop of the Pembroke Yeomanry, joined the fray too, assembling his men at nearby Stackpole Court.

As Knox and his men were outnumbered by the French, he tactically retreated and joined forces with Cawdor and Colby’s troops at Treffgarne, eight miles from Fishguard. Cawdor then took control of their assembled forces, which was now about 600 strong. Ready to do battle, he led them back to Fishguard, to face off against the invaders.

By the time the British troops had made it back to within a mile of Fishguard on the afternoon of 23 February, the sun was already low in the sky. Determined to make the most of the light before it faded, Cawdor announced that his men would attack. This was supremely risky, and would have proved fatal the British troops would have walked down a narrow country lane, pulling canons behind them, only to be ambushed by French soldiers hiding in the hedgerows. Ultimately, though, Cawdor decided not to press the attack, and he withdrew his forces to Fishguard.

But Cawdor and his men certainly weren’t the only defenders of Britain. A cobbler’s wife called Jemima Nicholas (nicknamed ‘Jemima Fawr’, meaning ‘Jemima the Great’) was also determined to see off the French. Wielding a pitchfork, she apparently rounded up 12 Frenchmen and marched them to

THIS MONTH... 1797

ANNIVERSARIES THAT HAVE MADE HISTORY

ABOVE: **William Tate's surrender is depicted on a tapestry in Fishguard town hall, created for the bicentenary of the invasion in 1997**

LEFT: **A marker at nearby Carreg Wastad Point shows where the French came ashore**

◀ St Mary's Church in Fishguard. She promptly locked them inside and went off once again, to find more soldiers.

MISTAKEN IDENTITY

Apart from Jemima, it's also said that some of the French may have been frightened by local Welsh women because of their clothes. Wearing traditional red cloaks and black hats, their outfits resembled the distinctive uniforms of the British infantry perhaps giving the impression that the defending force was significantly stronger than it was in reality.

This may help explain why the French surrendered so quickly. Although they had found a good defensive position, the situation was looking increasingly dire for the invaders. As well as failing to contain mutiny within their ranks, the locals had not picked up arms in support of the French as imagined, but met them with hostility. Their escape option had vanished, as Castagier's warships had sailed off to Ireland. They now faced

600 British fighters with no means of escape.

During the night of 23 February, Tate sent two officers to Cawdor with a message: "The Circumstances under which the Body of the French Troops under my Command were landed at this Place renders it unnecessary to attempt any military operations, as they would tend only to Bloodshed and Pillage. We therefore desire to enter into a Negotiation upon Principles of Humanity for a surrender. If you are influenced by similar Considerations you may signify the same and, in the meantime, Hostilities shall cease."

But Cawdor turned it down he would only agree to an unconditional surrender, and absolutely nothing less. The French had until 10am the next day to make up their minds. That morning he gathered his troops in a battle formation. If Tate's answer was no, the British response was clear.

Tate was out of options. He accepted the terms, and on the afternoon of 24 February the invading soldiers proceeded to Goodwick Sands, marching mournfully to the sound of drums. Surrendering their weapons, they were taken prisoner and transported to jail. They remained captives until the following year, when they went back to France in a prisoner exchange. And so, the last invasion of Britain came to an end just 48 hours after it started not with a bang, but with a whimper.

GETTY IMAGES X1, ALAMY X4

EVERY MONTH THROUGHOUT 2022, WE'LL BE COMMEMORATING THE BBC'S 100TH BIRTHDAY WITH A TRIP DOWN MEMORY LANE...

12 February 1974

BAGPUSS MAKES HIS DEBUT

The first episode of Peter Firmin and Oliver Postgate's stop-motion animation series *Bagpuss* airs, to the delight of children across the nation. Following the fortunes of a "saggy old cloth cat" and his misfit friends, only 13 episodes are produced. In 1999, it will be named the UK's favourite kids' series of all time.

FEBRUARY ANNIVERSARIES

A LOOK BACK AT OTHER EVENTS THAT HAVE TAKEN PLACE IN FEBRUARY THROUGHOUT HISTORY

18 February 1847

RESCUERS LOCATE THE DONNER PARTY

Deep in the Sierra Nevada Mountains, rescuers find the last surviving members of the Donner Party – a group of pioneers who had got lost while migrating to California from America's Midwest. It transpires that some of the party have resorted to cannibalism to make it through the harsh winter.

10 February 1942

GLENN MILLER STRIKES GOLD

American bandleader and trombonist Glenn Miller is presented with the first unofficial 'gold disc' after his latest record, 'Chattanooga Choo Choo', hits 1.2 million sales. Miller's label RCA Victor gives him the accolade to celebrate the song's astronomical success. As the music industry grows, similar awards will be presented to artists by trade bodies such as the Recording Industry Association of America.

Could a suburban semi in West Yorkshire be haunted by the ghost of a medieval monk? BBC Radio's **Danny Robins** pays an overnight visit to find out...

The current owner of 30 East Drive, Bil Bungay (*above*), lets ghost hunters book overnight stays inside his supposedly haunted property

Recent guests to 30 East Drive have photographed apparitions (*left*) and witnessed objects, like this open Bible and pair of trainers (*above*), being placed in unusual locations

"I always feel nervous **going up these stairs," says Bil Bungay.** Bil is tall, with a ponytail and slightly bohemian scarf. He's a successful businessman and the owner of 30 East Drive. It's a modest, semi detached house that just happens to be the site of one of the most violent and terrifying alleged poltergeist hauntings in British history 'The Black Monk of Pontefract'.

The town of Pontefract in West Yorkshire is where King Richard II was murdered, so you'd expect roaming spirits to stalk its medieval centre, but we're in the less obviously atmospheric location of the Chequerfield housing estate. In 1968, the Pritchard family, who lived in 30 East Drive, spent 10 months bombarded by bizarre, violent events, including objects such as paintbrushes, eggs and a crucifix flying through the air, a grandfather clock being chucked downstairs, and sinister inverted crosses appearing painted on doors.

Dad Joe was seemingly locked in the cupboard where the family kept coal, and physically attacked. Most terrifyingly, mum Jean and her teenage son Phillip saw Phillip's sister Diane being dragged up the stairs, screaming. Afterwards, she had what looked like red finger marks on her neck!

So, I can understand why Bil is nervous about these stairs. He now rents the house out to ghost hunters to spend the night, which is why I'm here, to record an episode of one of my podcasts. It's said the poltergeist, who the family nicknamed 'Fred', is still active. On the house's website, you'll find a long list of the phenomena visitors here claim to have experienced. Whether you believe in ghosts or not, there's something creepy about the place, the 1960s decor seemingly frozen in time.

Bil had his own strange experience one day when he was washing up at the sink in the kitchen. "I felt the instinct to turn, and an object just materialised in thin air, and flew straight at me. It bounced off the window, and then landed on the floor. I looked down, and it was a domino. I'll never forget it. I spent the next two hours being bombarded by objects."

It sounds bizarre, but the history of this house is littered with truly weird incidents. Maybe strangest of all was when the Pritchard family's deeply religious Aunt Maude came to stay. She lost her fur gloves somewhere in the house, only to be woken in the night by disembodied hands seemingly wearing them! As she sang 'Onward Christian Soldiers' to scare them off, the hands conducted her!

But why is 'Fred' described as 'The Black Monk of Pontefract'? The name comes from a dark, cowled figure the Pritchards claimed to have seen, which became linked to reports a medieval monk had been hanged on the site on which the house was built. Like so many good stories, this particular detail turned out to be untrue, but, monk or no monk, something deeply strange happened back in the 1960s that had a life changing effect on the Pritchard family, and as I prepare to spend my own night in this most infamous of haunted houses, I feel a mixture of excitement and nerves. All my life I've wanted to see a ghost, but hearing the stories of what's happened at 30 East Drive, I think "be careful what you wish for..."

To find out what happened next, listen to episode 6 of *The Battersea Poltergeist*. (Spoiler: I survived, as I made it back to write this!)

DANNY ROBINS is a writer, broadcaster and journalist. He is the presenter of the BBC Radio 4 podcasts *The Battersea Poltergeist* and *Uncanny*, available now on BBC Sounds

LISTEN

Danny's visit to 30 East Drive appears in episode 6 of *The Battersea Poltergeist*, available to stream on BBC Sounds: *bbc.co.uk/programmes/p0977lbn*

WILLIE RUNTE X1, COURTESY OF THE 30 EAST DRIVE IMAGE ARCHIVE X3

OWN A PIECE OF HISTORY WITH THE ONOTO HURRICANE PEN

Crafted with metal retrieved from a legendary World War 2 aircraft type that significantly contributed to saving Britain from invasion by the Nazis in 1940.

The pen's propeller 'spinner' is crafted of aluminium from Hawker Hurricane P2725 TM-B, the remnants of which were recovered from beneath Buckingham Palace Road, central London, in May 2004, sixty-four years after it had crashed there on 15 September 1940.

ONOTO

DISCOVER THE ETERNAL

Available November 2021 from **onoto.com**

The Terracotta Warriors

Words: Emma Slattery Williams

One of history's great archaeological discoveries: an underground army of thousands of soldiers, protecting their Chinese emperor for more than two millennia

GETTY IMAGES X1, ALAMY X1

WHAT ARE THE TERRACOTTA WARRIORS AND HOW OLD ARE THEY?

The Terracotta Warriors are life size statues commissioned by the first emperor of China, Qin Shi Huang, who reigned from 221 210 BC. A form of funerary art, they were created to protect the emperor in the afterlife. There aren't just warriors, however: the emperor ordered the creation of an entire army, including hundreds of chariots and horses, along with a subterranean city. The warriors stood watch for more than 2,000 years before their accidental discovery nearly 50 years ago.

WHERE ARE THEY LOCATED?

The Terracotta Warriors lie within the Mausoleum of the First Qin Emperor, in Xi'an, the capital of Shaanxi province in northwest China and one of the country's oldest cities. As well as serving as the emperor's final resting place, the almost 38 sq mile site contains the mass graves of labourers and craftsmen who were involved in the construction. The remains of criminals in chains have also been uncovered, too.

WHO WAS QIN SHI HUANG AND WHAT WERE HIS MAIN ACHIEVEMENTS?

Qin Shi Huang was the first emperor of a unified China and the founder of the Qin dynasty. He was only 13 when he ascended the throne of Qin in 246 BC, but by 221 BC he had unified all the warring kingdoms within China and established an empire. He is also known for linking existing segments of wall in the states of Qin, Yan and Zhao to form what would eventually become known as the Great Wall of China. Little of this early structure has survived, however most of the sections seen today date from the later Ming Dynasty (1368 1644).

As well as his wall building efforts, Qin Shi Huang established a network of roads and canals between the Chinese states, abolished territorial feudal power in the empire, and appointed officials to his government based on their skills and talents rather than their family connections. Yet despite the positive changes Qin brought to China, he is widely regarded as a tyrant who ruled by fear and oppression. He ordered the burning of books that did not follow his views, and many writers and philosophers were executed during the course of his reign.

> "More than 8,000 full-size terracotta soldiers have been found to date, each around six feet high"

For ruling as the first emperor of a unified China, Qin Shi Huang felt he deserved a magnificent, terracotta soldier-filled tomb

EXACTLY HOW MANY FIGURES ARE THERE?

More than 8,000 full size terracotta soldiers have been found to date, each around six feet high and positioned in formation according to their military rank. Though today the warriors are

ABOVE: **While it was Qin Shi Huang who initiated the building of the Great Wall of China, little of the original structure remains today**

RIGHT: **The warriors, which are all arranged according to their military rank, were originally armed with weapons and painted in bright colours**

famous for their reddish-grey colour, they were originally painted in bright hues and armed with weapons, including bronze swords, spears, lances, axes and crossbows, many of which were discovered in near-perfect condition. Around 40,000 weapons, the vast majority being arrowheads, have been found alongside the warriors in total.

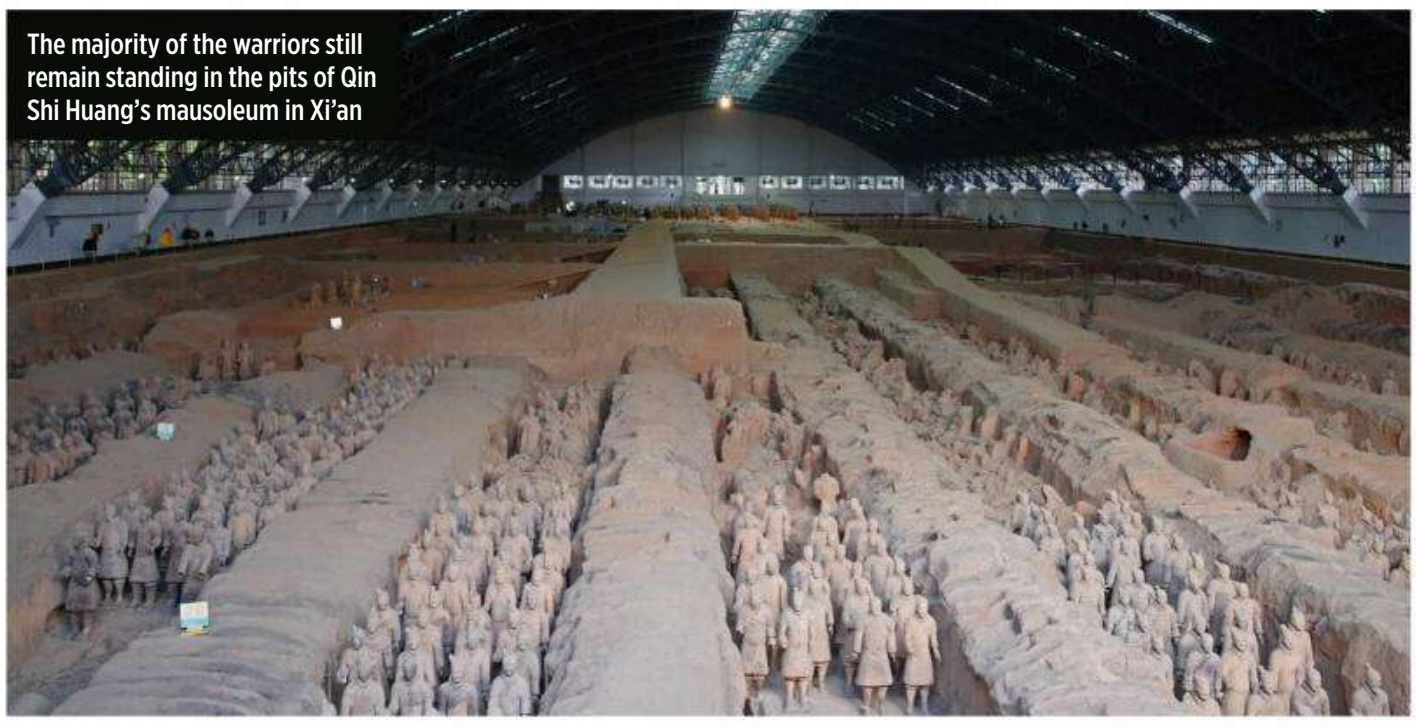
To protect their emperor in death, all of the warriors were positioned facing outwards from his tomb, always prepared for attack. But Qin didn't just seek military power after he died – entertainment was important, too, and around his tomb there are statues of acrobats in mid-performance, along with dancers and musicians.

Interestingly, four underground pits have been found during the course of excavations, but the fact that one was left empty seems to suggest that the emperor died before his full plan for the site could be completed.

WHY WERE THE TERRACOTTA WARRIORS CREATED?

It seems that one of Qin's main motivations for commissioning the statues was his obsession and quest for immortality. Numerous assassination attempts were made on the emperor's life, making him terrified of death and superstitious when it came to evil spirits. He often consulted alchemists to find potions that would conquer death; indeed, some of the scholars executed during his reign were killed after failing to create him the fabled elixir of life. Ironically, it is thought that this obsession may have hastened his demise, as some of the 'magic' potions he drank contained toxic levels of mercury.

> "If the legends are true, those who built the mausoleum were killed to keep their secrets"



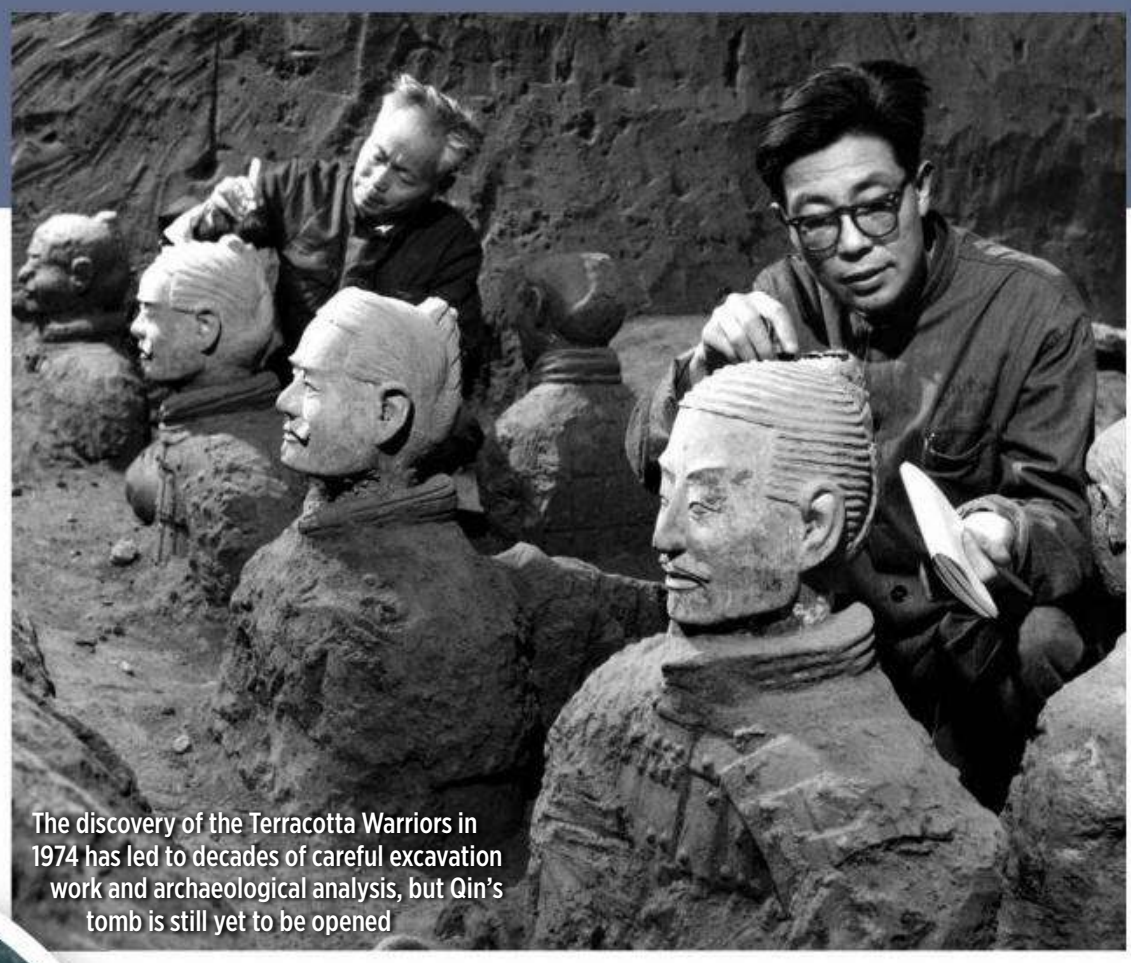
The majority of the warriors still remain standing in the pits of Qin Shi Huang's mausoleum in Xi'an

But as well as seeking warriors that could protect him after death, Qin also wanted subjects that he could rule over in the afterlife. Qin hoped his might and status would persevere, and that his mausoleum would serve as a reminder of his triumph in uniting China. Earlier Chinese rulers had sacrificed soldiers and servants to be buried alongside them, so having a terracotta army meant this wasn't necessary – although if the legends are true, those who built the mausoleum were killed to keep their secrets anyway.

HOW WERE THEY MADE?

It's believed that work began on the emperor's mausoleum not long after he ascended the throne at the age of 13, and continued until around a year after his death in 210 BC. According to the first/second-century BC scholar Sima Qian, more than 700,000 people were

GETTY IMAGES X3, ALAMY X2



The discovery of the Terracotta Warriors in 1974 has led to decades of careful excavation work and archaeological analysis, but Qin's tomb is still yet to be opened

As well as the famed warriors, statues were made of acrobats, dancers, musicians and even concubines

conscripted to work on the project, although this is probably something of an exaggeration since this is more people than the population of any city in the world at the time.

There are multiple views on precisely how the statues were made. One theory is that the heads, torsos and limbs of the warriors were cast as separate modules, then joined together with clay. Remarkably, each statue seems to have its own unique physical characteristics, suggesting the artists were trying to represent a realistic army. For example, scientists have since examined the ears of the warriors and discovered that they are all slightly different. On humans, ears can be as individual as fingerprints, so we know that the warriors' heads weren't all created from the same mould.

When it came to making the weapons, chemical analysis has shown that these were all created in a bespoke fashion, too. They were likely made by individual artisans who constructed each item from start to finish, rather than an ancient assembly line where one person would make the handle, the next person the blade, and so on. Some of the weapons even carry inscriptions stating the name of its maker and the date of its creation.

WHAT DO HISTORICAL RECORDS SAY ABOUT THE WARRIORS?

The only historical account of the mausoleum's construction comes from the Chinese scholar and historian Sima Qian (c145–c85 BC), who wrote the *Records of the Grand Historian* and described the emperor as being buried alongside several palaces and 100 flowing rivers of mercury. Sima makes no mention of the statue army, but he was writing more than 100 years after Qin's death, so his accounts cannot be fully taken as fact.

IS IT TRUE THAT PEOPLE WERE BURIED ALIVE INSIDE THE MAUSOLEUM?

According to legend, and the account of Sima Qian, thousands of craftsmen and officials involved in the construction were buried alive within the mausoleum in order to keep the tomb a secret. Many human remains have been found at the site, though it remains unclear how and why they died.

It's also believed that some of the emperor's concubines were killed and buried inside the mausoleum. While they may have been killed in order to accompany the emperor in the afterlife, there are some suggestions that Qin's son and successor, Qin Er Shi, had the women murdered in case any were pregnant and risked giving birth to a child that could challenge his rule.

WHEN WAS THE SITE DISCOVERED?

The Terracotta Warriors were discovered in 1974 when local farmers digging a well outside Xi'an stumbled across a full-size solider made of clay and ready for battle. Once the Chinese government sent their archaeologists to investigate the site, they found thousands more.

Qin's tomb itself has not been excavated, but records suggest it may contain precious stones and models of palaces with mercury streams. Sima Qian claimed that the emperor's tomb contained booby traps for anyone who disturbed his eternal slumber, including rigged crossbows and even more quantities of mercury. Analysis suggests that the latter, at least, is true, as more than 100 times the naturally occurring level of mercury has been detected in some areas of the site.

WILL MORE OF THE SITE BE EXCAVATED IN THE FUTURE?

In recent years, the Chinese government has been reluctant to carry out further excavations due to fears that exposing the warriors to the elements could damage them. According to the country's Protection Law of Cultural Heritage, excavations on ancient sites are only allowed when they are threatened by natural disasters and robberies or included as part of national 'key projects'. As a result, the full story of the Terracotta Warriors may remain hidden for many years to come.

LISTEN

Edmund Burman describes the fascinating story of the Terracotta Warriors in a *HistoryExtra* podcast from 2018: *historyextra.com/period/roman/the-terracotta-warriors*

Romulus Augustus: the last Roman emperor

His name recalls two of Rome's great leaders – its founder and first emperor – but his brief time as a puppet ruler signalled the end of the moribund Roman empire in the west

When it comes to the list of the Roman emperors, there are instantly recognisable names: the famous or infamous for their deeds (like Claudius' conquest of Britain or Constantine and his conversion to Christianity) or their often deranged behaviour (think Caligula, Nero or Commodus). Their reigns have been pored over, told, retold and occasionally embellished as their place in the history of the Roman empire is weighed up.

Romulus Augustus has none of this. His name is little known, his life even less so, and his brief reign seems nothing more than a footnote at the end of ancient Rome. And yet he holds a strangely significant honour as the last legitimate Western Roman emperor, whose overthrow marked a political shift in early medieval Europe.

Born c461 – 65 AD, Romulus was the son of a Roman aristocrat, general and politician named Orestes, who had been part of Attila the Hun's court. His mother was the daughter of Count Romulus of Passau, from whom he was named. Although little else is known about his childhood, his father's prominent position suggests that Romulus received a formal education typical of noble boys at the time.

The situation changed in AD 474 when Orestes was appointed *magister militum*, or 'master of soldiers', by the new emperor of the Western Roman empire, Julius Nepos. Orestes quickly saw his newfound command of the army as an opportunity to take power for himself, and his bloodline. By August AD 475, he had seized control of the government in Ravenna, and Nepos had fled to Dalmatia.

LACKING LEGITIMACY

But rather than taking the throne for himself, Orestes made Romulus the next emperor. Aged around 10 to 14 years old, he was proclaimed as 'Romulus Augustus'. Many historians have remarked on the symmetry of the last Roman emperor having the same name as the first, and the Roman public did not take kindly to their new ruler's choice of imperial name. Many referred to him as 'Momyllus', ('little disgrace') or 'Romulus Augustulus', which meant 'little Augustus'. This suggests that few recognised Romulus as their legitimate ruler.

An engraving of a coin minted for emperor Romulus Augustus – one of the few relics of his rule

In truth, he was far from legitimate: from his exile, the usurped Nepos still claimed the throne and was being recognised in the east as emperor. To some historians, it is Nepos who is remembered as the last Western Roman emperor. Besides, the young Romulus was only a figurehead for his father. He did not get involved in politics and although his name was printed on some coins minted in cities such as Rome, Ravenna and Milan, no monuments were built in Romulus' honour.

To add to his troubles, the empire was in severe decline having lost much of its political power and land in the previous century. But the eastern empire – also known as the Byzantine empire – had grown wealthy and its rulers threatened to conquer the west's dominions.

Within the western empire, Romulus (through Orestes) failed to establish legitimacy. In AD 476, troops from the eastern Germanic tribes of Heruli, Turcilingi and Scirian united to mutiny against him, and under the leadership of an officer named Odoacer, they swiftly marched across the Italian border in rebellion.

THE END OF AN EMPIRE

On 23 August, Odoacer proclaimed himself the first barbarian king of Italy and five days later defeated Orestes in battle. Romulus' father was captured and executed, while the teen emperor fled the fighting and made his way to Ravenna. Just over a week later, that town was in Odoacer's hands, too, and Romulus was deposed.

And so, the western empire was ended, not with a bang but with a whimper. The imperial seal and other items from the office were sent to the emperor of the eastern empire, Zeno, signifying the end of the rule of the west.

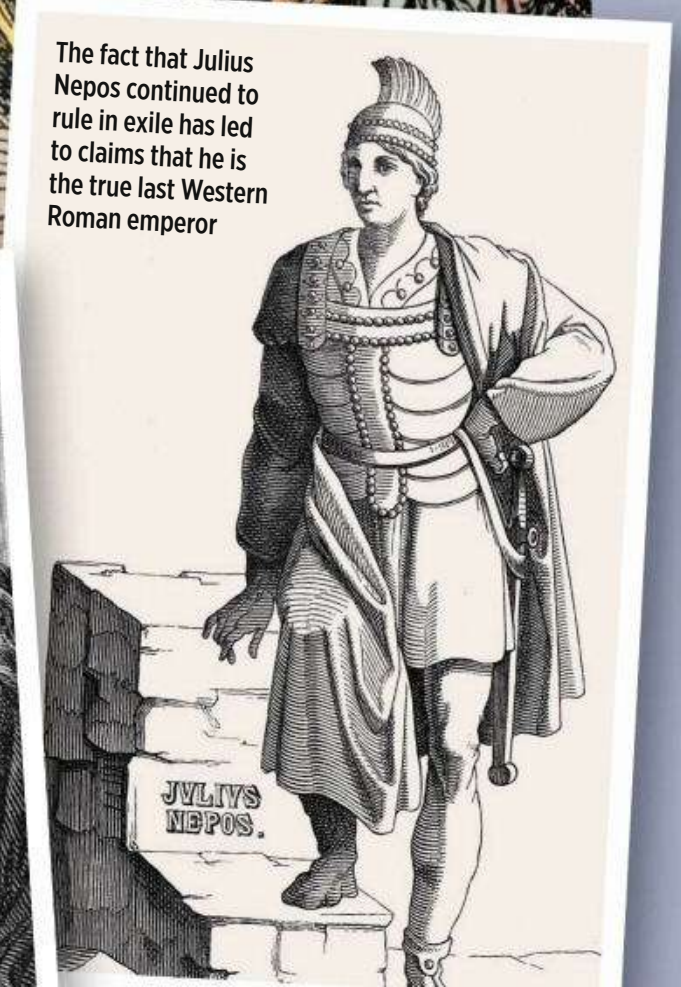
Despite his overthrow, Romulus did not suffer the same fate as his father. Legend has it that after meeting the boy, Odoacer decided to spare his life as he considered Romulus too young to die. He instead sent him away to live at the castle of Lucullus in Campania, southern Italy, and gave him a pension of 6,000 *solidi* per year.

Questions over what happened to Romulus next continue to perplex historians. There is next to no evidence of his existence after his downfall. Many assume that he resided in Lucullus Palace in Campania for the remainder of his life, which there is some indication to suggest lasted until the first decade of the sixth century.

A child puppet ruler of less than a year who disappeared from historical record: despite his title as last Western Roman emperor, there is reason why Romulus will never be remembered as one of Rome's most famous or important rulers.

GETTY IMAGES X2, ALAMY X2

“Romulus was a figurehead for his father. He did not get involved in politics and no monuments were built in his honour”



The fact that Julius Nepos continued to rule in exile has led to claims that he is the true last Western Roman emperor

ABOVE: **Odoacer forces Romulus to give up the imperial crown in this dramatised illustration; the deposed emperor was allowed to live, however**

RIGHT: **Odoacer was a German warrior in the Roman army before leading his troops in mutiny against Romulus and being proclaimed as king of Italy**

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PODCAST

Professor Emma Griffin discusses the Industrial Revolution on the HistoryExtra podcast: *historyextra.com/industrial-revolution-qa*

YOUR ESSENTIAL GUIDE TO THE INDUSTRIAL REVOLUTION

In the space of a century, Britain went from being a predominantly agricultural nation to an industrial powerhouse. Mills and factories came to dominate the skylines of major cities, while advances in science and technology enabled the economy to flourish in ways that had never been seen before.

Traditional cottage industries, carried out by hand inside family homes, were soon made redundant by mass production and mechanisation, and village dwellers abandoned their rural communities for opportunities in the new metropolises. But it wasn't all good news: with rapid industrialisation also came poverty, disease and labour exploitation.

In this month's Essential Guide, we'll be telling the story of Britain's Industrial Revolution, looking beyond the whirring cogs and smoke to examine its impact on the lives of ordinary people. Guided along the way by historian Professor Emma Griffin, we'll meet the brilliant minds behind some of the era's greatest inventions and discover the experiences of the workers who made progress possible. Crucially, we'll also reveal how the age of steam triggered widespread changes across the globe, and why its effects are still felt to this day.

First, however, we begin with a timeline charting some of the key milestones of the period – just turn the page to get started.

30 Britain's industrial boom
We follow the key inventions and political changes that brought about the Industrial Revolution – and transformed Britain forever

32 Everything you wanted to know about the Industrial Revolution
Professor Emma Griffin answers our questions and challenges some of the most common misconceptions about the period

36 Before the revolution
What was Britain like before the age of the factory?

38 Top 11 inventors of the Industrial Revolution
We meet the men and women whose creations still impact the way we live today

42 Female labour
Women may have taken on new roles within the workplace – but they were still shackled to their traditional domestic duties, too

43 Children of the revolution
Inside the harrowing stories of young workers used as a source of cheap labour

46 Progress and its price
We examine the big numbers of the Industrial Revolution: from workers' wages to mortality rates in Britain's smoke-filled cities

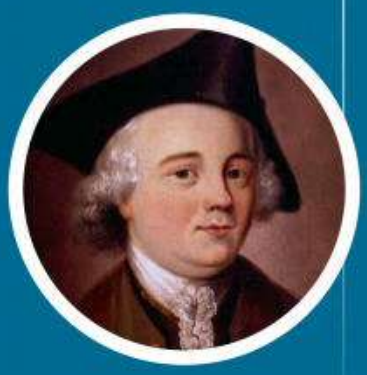
48 How the revolution spread from Britain
From France and Belgium to North America and India, the effects of Britain's Industrial Revolution soon travelled across the globe

53 The social impact of industrialisation
Did the Industrial Revolution truly improve the lives of Britain's workers?

EMMA GRIFFIN is a professor of modern British history at the University of East Anglia and president of the Royal Historical Society. She is the author of five books, including *Bread Winner: An Intimate History of the Victorian Economy* (Yale University Press, 2020).

BRITAIN'S INDUSTRIAL BOOM

1733



▲ John Kay invents the 'flying shuttle', speeding up the weaving process and making looms more automated.

1761

The Bridgewater Canal opens, connecting Manchester to coal mines in Worsley. A remarkable feat of engineering – as the first canal in Britain not built on an existing waterway – it helps spark a period known as 'canal mania', with intense construction across England and Wales.

c1764

▼ James Hargreaves creates the 'spinning jenny', a hand-powered machine capable of spinning eight threads of cotton or wool at once – a huge step in the industrialisation of the textile industry.

1769

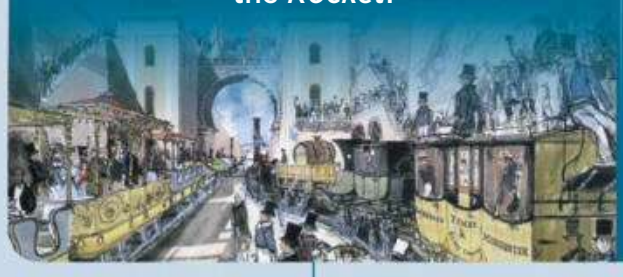
The so-called 'father of the factory system', Richard Arkwright, patents his spinning frame. The water-powered machine makes it possible to mass produce cotton yarn and does not require skilled workers.

1771

▼ Arkwright opens the world's first water-powered cotton mill in Cromford, Derbyshire. Soon, similar mills and factories are being built across Britain.

1830

▼ The first inter-city rail line opens, designed and built by George Stephenson. It offers easy access for the landlocked industrial city of Manchester to the ports of Liverpool, with goods flowing between the two cities. With his son Robert, Stephenson also develops the steam locomotive, the *Rocket*.



1825

The Stockton and Darlington Railway opens as Britain's first steam-hauled passenger railway. As the power and speed of steam engines improves, the expansion of railway networks accelerates – by 1844, there will be over 2,210 miles of track across Britain.

1819

The Cotton Mills and Factories Act attempts to regulate child labour in the cotton industry, banning the employment of children under nine and limiting those under 16 to 12 hours a day. The law isn't widely enforced and magistrates often side with the factory owners.

1815

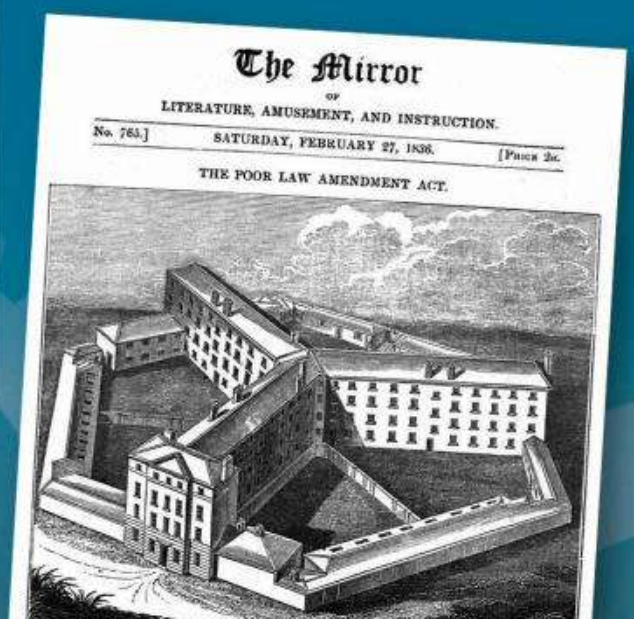
◀ Two designs of miner's safety lamp (*pictured*) are independently developed by Humphry Davy and George Stephenson so that miners can have light without risking an explosion from the methane gas in the pits.

1833

The ban on employing children under nine is extended to the whole textile industry with the Factory Act. The legislation also ensures that all children under 13 years of age receive two hours of education per day.

1834

▼ The Poor Law establishes workhouses for the poor and destitute.



The Mirror
OF
LITERATURE, AMUSEMENT, AND INSTRUCTION.
No. 765.] SATURDAY, FEBRUARY 27, 1836. [Price 2d.
THE POOR LAW AMENDMENT ACT.

1842

A royal commission investigating working conditions in mines and factories issues *The First Report of the Children's Employment Commission*. Public outcry leads to the Mines and Collieries Act, forbidding all women and under 10s from working underground.

1844

Another Factories Act demands all hazardous machinery be fenced off and states that children must not clean any machine in motion.

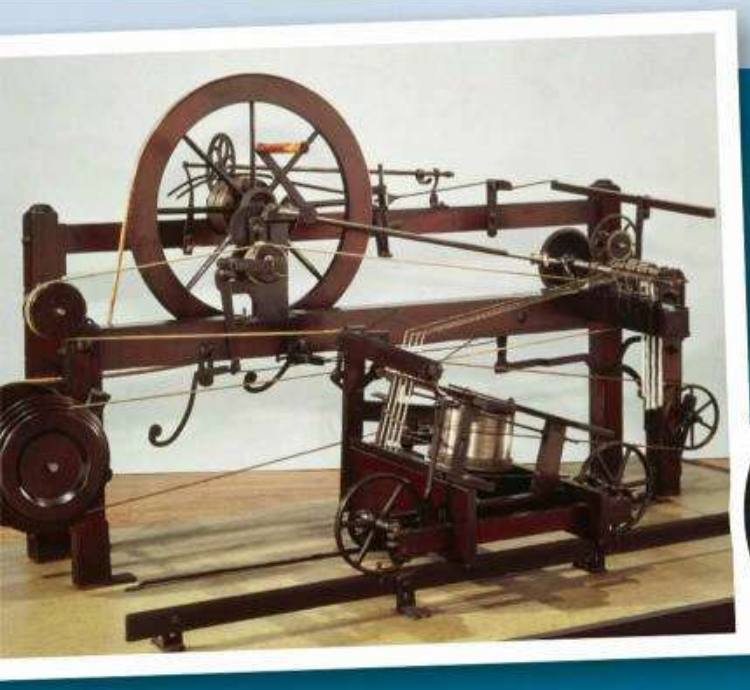
1847

▼ The Ten Hours Act limits the working day for women and children to 10 hours.

GETTY IMAGES X17

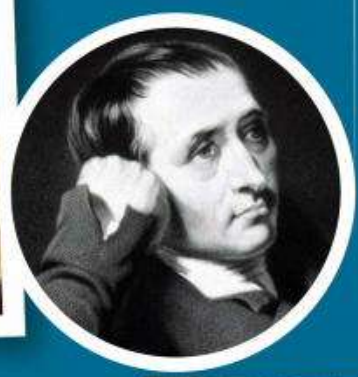
Throughout the 18th and 19th centuries, Britain led the way in industrialisation, which saw rapid changes across both technological and social spheres

WORDS: EMMA SLATTERY WILLIAMS



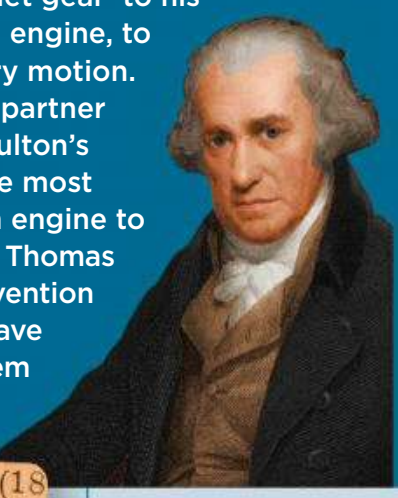
1779

◀ **Samuel Crompton combines spinning** and weaving in **one machine – the** spinning mule.



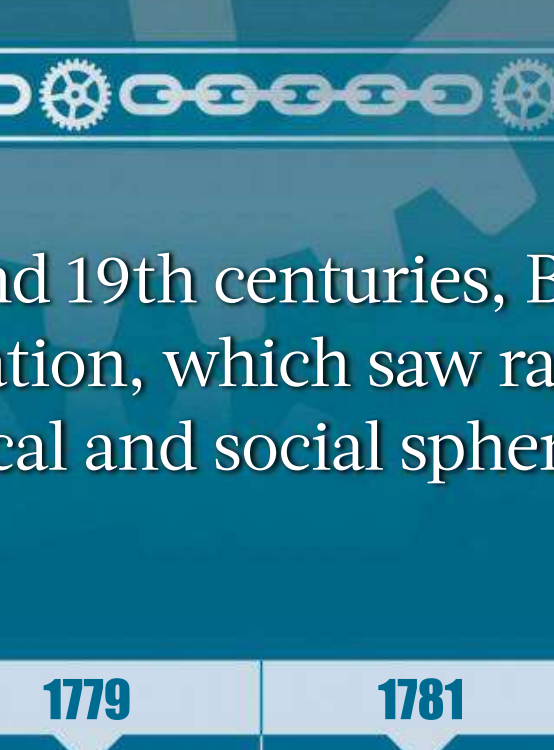
1781

▼ The need for water wheels to power machines is reduced after Scottish inventor James Watt (*below*) introduces a 'sun and planet gear' to his existing steam engine, to generate rotary motion. Watt and his partner Matthew Boulton's design is the most efficient steam engine to date; based on Thomas Newcomen's invention of 1712, they have been selling them since 1776.



1785

▲ Edmund Cartwright patents the power loom, mechanising the weaving process.

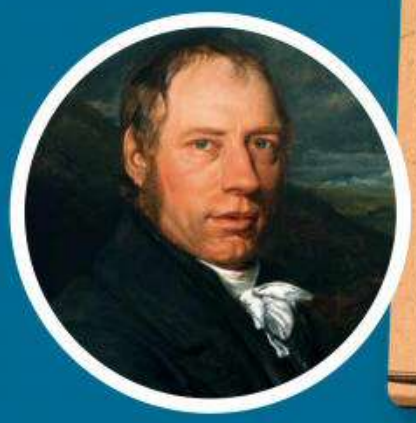


1811

The Luddites – who are opposed to industrialisation – launch their first major rebellion with riots in Arnold, Nottingham. They break into factories and mills to destroy textile machinery, which they see as a threat to their livelihoods.

1804

▶ Engineer Richard Trevithick tests the world's first railway steam locomotive.

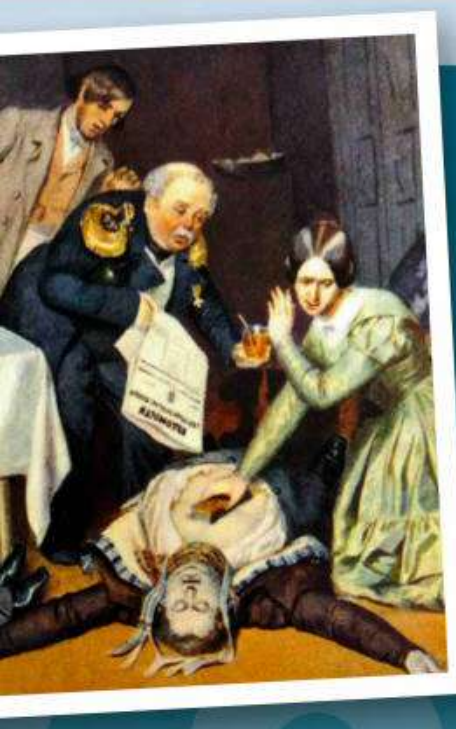


1799–1800

The Combination Acts are passed, prohibiting trade unionist activity and sentencing workers calling for better pay or lower hours to jail or hard labour. The laws are later repealed in 1824 and 1825 following discontent and violence.

1794

The exhaust pump is introduced by John Buddle to take stale air out of mines. Concerned with underground safety, he is a founding member of the Society for the Prevention of Accidents in Coal Mines.



1848–49

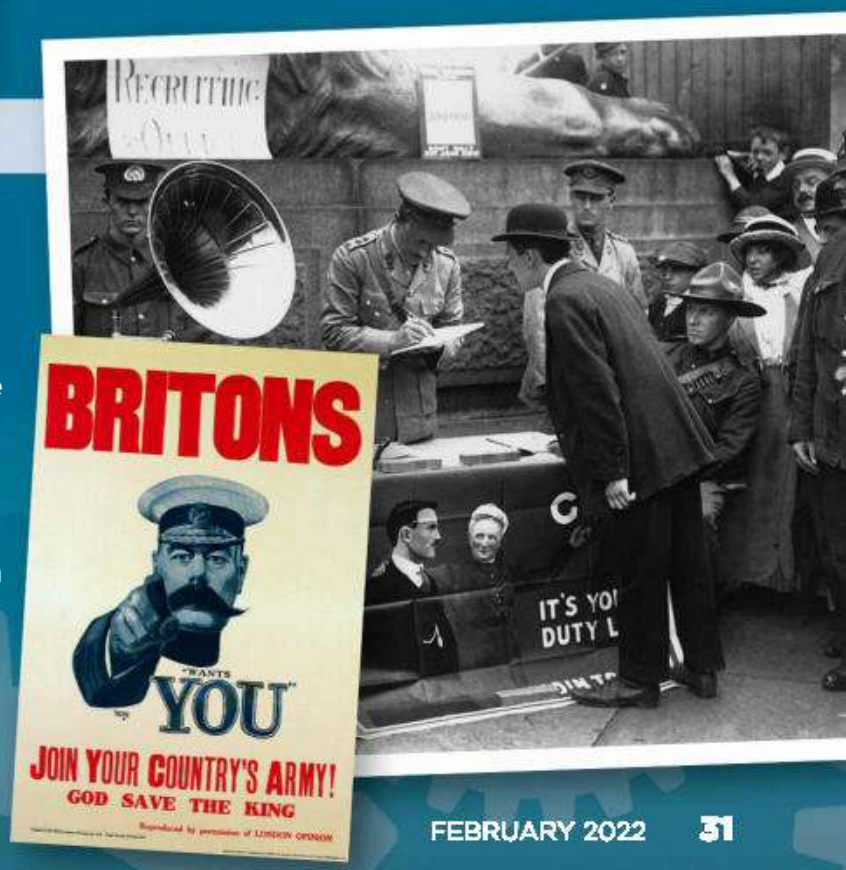
◀ **A devastating** outbreak of cholera kills more than **50,000 people across Britain.** The spread of the disease is much worse **than previous outbreaks due** to the large **populations now** based in the **industrial cities.**

1900

By the turn of the century, around 85 per cent of England's population live in large towns and cities – compared to some 15 per cent in the mid-18th century – many in overcrowded slums.

1914

▶ With Europe now embroiled in World War I, Britain's run as the leading industrial power comes to an end as other countries greatly intensify their own industries. ⊙



Bobbin winder girls pictured with their foreman at a mill in Radcliffe, Lancashire, c1915. Textile manufacture dominated northwest England throughout the Industrial Revolution

EVERYTHING YOU WANTED TO KNOW ABOUT THE INDUSTRIAL REVOLUTION

Professor Emma Griffin answers key questions about a period of immense social and economic change in Britain

Q: What was the Industrial Revolution?

A: I always preface the answer to this question by saying that historians aren't entirely in agreement about what the Industrial Revolution was, so this is my interpretation.

Prior to the Industrial Revolution, everything in a person's life and all their basic needs came from the land in some way: the houses in which they lived, the food they ate, the clothes they wore. Industrialisation was the process that moved us away from this very intimate connection between our needs and the seasons and the land. It was the switch where we stopped being dependent on our immediate environment and started to consume in a completely different way, and also got the things we needed in a completely different way.

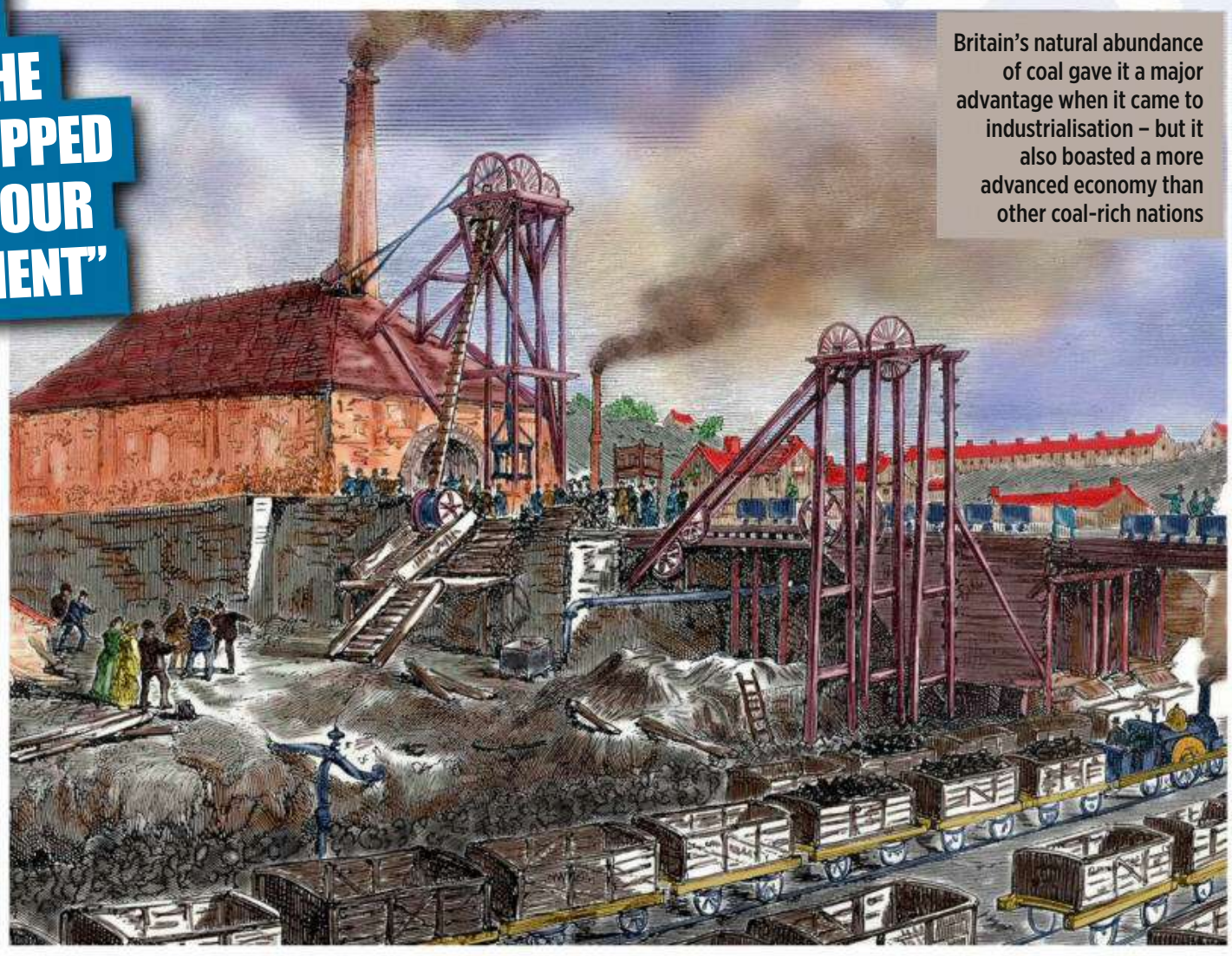
Q: When was Britain's Industrial Revolution?

A: Industrialisation was a long, drawn out process, particularly in Britain, because there was no template. And crucially, nobody knew they were industrialising at the time even the language associated with the Industrial

Thousands of families abandoned agricultural work to seek new jobs in mines, mills and factories

GETTY IMAGES X2, ALAMY X4

"THE INDUSTRIAL REVOLUTION WAS THE SWITCH WHEN WE STOPPED BEING DEPENDENT ON OUR IMMEDIATE ENVIRONMENT"



Britain's natural abundance of coal gave it a major advantage when it came to industrialisation – but it also boasted a more advanced economy than other coal-rich nations

Revolution came later. But by the late 18th century, Britain was starting to look quite different to other parts of the world, in that machines were being used to do a lot of the making, and things were beginning to be made that weren't local. Cloth, for example, was now being produced by machines using raw cotton fibres imported from overseas.

However, for me, industrialisation really took off when steam engines were used to power the economy, doing the work that was previously performed by humans and animals or by using wind and water power. And you can date that quite accurately. In Britain, steam engines started to spread through transport and industry in the 1820s and the 1830s. So, although the 18th century origins of industrialisation are important, for me the Industrial Revolution is really a 19th-century phenomenon.

Q: Why was Britain ahead of other countries when it came to industrialising?

A: One of the things that helped Britain was that it had a lot of coal. Many other countries also had a lot of coal, though, so the real question to ask is this: why was Britain so forward in getting the coal out of the ground and then using it to do useful things for us? Many of the inventions of the Industrial Revolution were rooted in the cotton industry, particularly the spinning element of that, which was traditionally done by hand. Gradually, the machines get bigger and bigger, and eventually we end up with these huge factories of spinning machines powered by steam engines. But it's very difficult to be completely clear as to why it happened in Britain at the time that it did.

For me, the point is that masses of effort is needed to make that transition from small domestic spinning wheel to large factory, and loads of new technology is needed to do it. But you also need workers to work in these new factories; you need lots of cash running around your economy so that people can build prototypes, experiment and fail; you need banks to lend you the money, and so on. So in many industries, not just in cotton, what you start to see is that the British economy in the 18th century was actually already very sophisticated. And that was quite different to places like India and China at this time, which, despite having really big populations, did not have very developed economies.

It's difficult, then, to say what the silver bullet was for Britain. The reality is that it was a very, very long process and a lot of groundwork had to be laid down before industrialisation really took off.

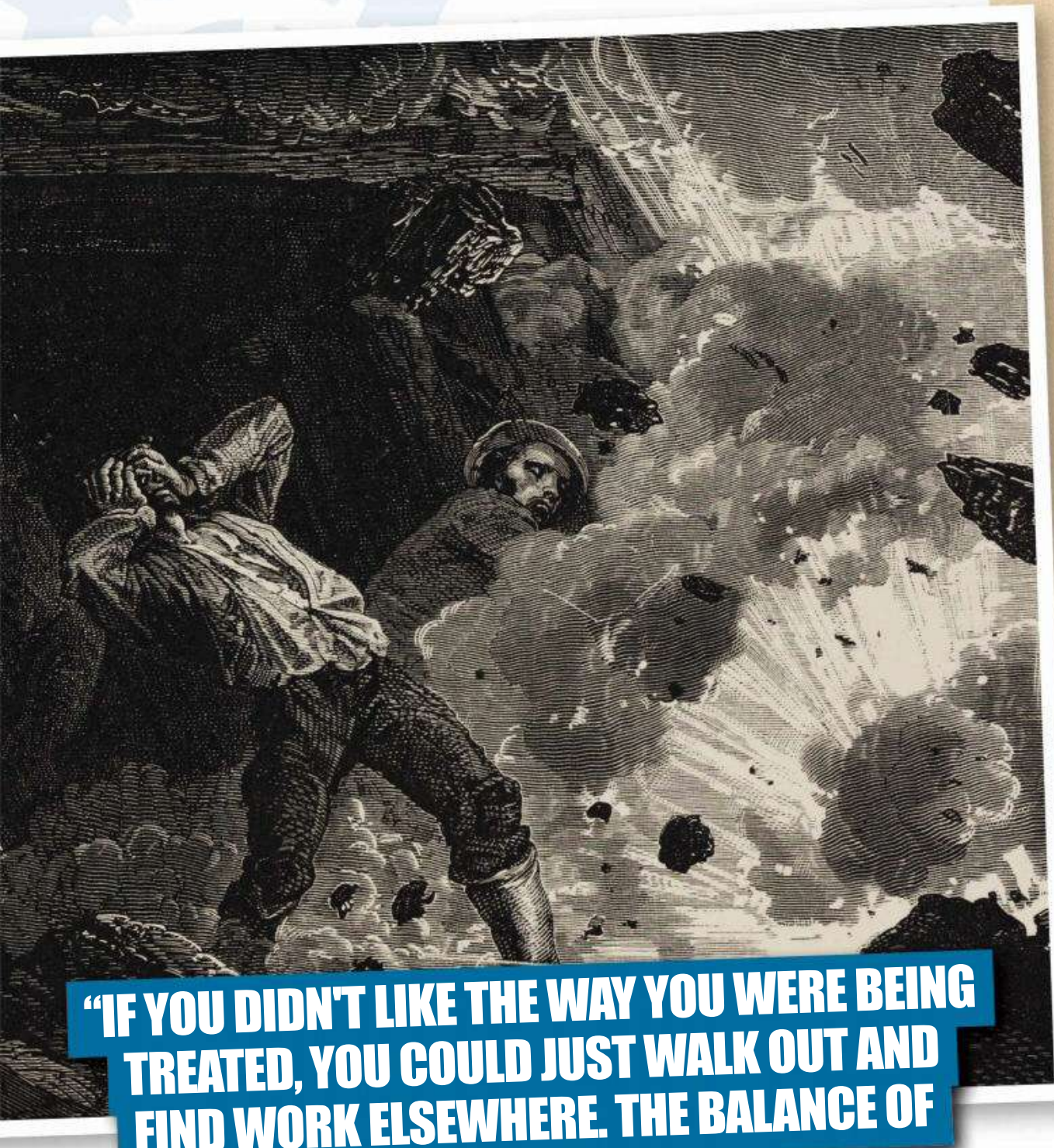
Q: Whose lives were most changed by the Industrial Revolution?

A: Your life would have changed much more acutely if you were living in an area that was close to the heart of the Industrial Revolution: Manchester, Lancashire, Newcastle and in the Scottish Lowlands near Glasgow. You would have also been affected if you were living near the coalfields, where new factories were emerging.

But what I think is very interesting is the way it affected men and women's lives. Before industrialisation, many people struggled to make a living, and the household worked as a unit. Men typically worked for wages and women usually did the domestic work and food preparation. In a time before ready meals and refrigeration, work in the home was very laborious and time consuming and was therefore seen as being of

Work that had formerly been carried out at home using small, domestic spinning wheels could now be replicated in factories on a much larger scale

Textile workers operate spinning mules while a child (*far right*) sweeps beneath the threads in an image from c1830



“IF YOU DIDN'T LIKE THE WAY YOU WERE BEING TREATED, YOU COULD JUST WALK OUT AND FIND WORK ELSEWHERE. THE BALANCE OF POWER WAS UPENDED”

high value. And because wages were low, there was an equivalence between domestic work and wage work, and the feeling that everyone was doing what they needed to do to survive.

One of the consequences of industrialisation, however, was the advent of well-paid waged work, particularly for men, which had the potential to upset the family unit. The man of the house could now earn something that was of much more value than perhaps their wife could provide, and as time went on, gas, electricity and water could be also piped directly into the home. As such, domestic work became devalued.

So, for me, one of the really significant changes was that families could become much more hierarchical, and there was far more of a diversity of experience among working people than there had been before. Society became more unequal, with some working people able to do well and become quite successful, and others completely left behind.

Q: How did wages vary across the different roles?

A: It varied across Britain, of course, but in the early 19th century, a typical weekly wage for a rural worker might be around 10–11 shillings. A coal miner might easily be able to earn double that. One of the main differences, though, aside from the headline rate of pay, is that some of this new well-paid work was available for women in factories. And that was a real novelty. It was usually only available to childless women, so that did limit numbers significantly, but a woman working in a factory might be on 12–13 shillings a week, and there are examples of working women earning a wage greater than their father had ever earned.

Another important thing to note is the sheer amount of work that industrialisation created. Where previously, there might have not been enough work to go around a village (and people were grateful for what they managed to get), there were now jobs in abundance. If you didn't like the way you were being treated, you could just walk out and find work elsewhere. So the balance of power between worker and employer was really upended.

ABOVE LEFT: **Coal mines were dangerous places to work, with fatal explosions all too common. Discontent over lacklustre safety measures was a key reason workers began to unionise as the 19th century progressed**

ABOVE RIGHT: **Although bands of ‘Luddites’ famously destroyed machinery in protest against mechanisation, most workers were happy to take on factory jobs, as they were better paid**

Q: What were workers’ conditions like during the Industrial Revolution?

A: Conditions in the workplace were horrific: the hours were very long and there was no concept of health and safety. Machines weren't fenced in, and if someone did suffer an injury at work, they would usually be blamed for being careless. And it was the same on the railways and in the mines – very dangerous working conditions. But it was at that moment, with this kind of modern industrial work, that workers started to unionise and campaign for their rights.

Q: How prevalent was resistance to industrialisation from workers?

A: There wasn't actually a lot of resistance from workers. There are well-known cases like the Luddites [bands of English workers

GETTY IMAGES X4, ALAMY X1

The Chimney Sweeper
A little black thing among the snow;
Crying weep, weep, in notes of woe!
Where are thy father & mother? say?
They are both gone up to the church to pray.
Because I was happy upon the heath,
And smild among the winters snow;
They clothed me in the clothes of death
And taught me to sing the notes of woe.
And because I am happy. & dance & sing
They think they have done me no injury;
And are gone to praise God & his Priest & King
Who make up a heaven of our misery.

ABOVE: **The period provided rich source material for artists such as JMW Turner, whose *Rain, Steam and Speed – The Great Western Railway* (1844) shows new technology literally hurtling forwards towards the viewer**

RIGHT: **William Blake's 1794 poem, *The Chimney Sweeper*, decries child labour and the conditions faced by young workers**

in the early 19th century who destroyed machinery, believing that industrialisation was threatening their livelihoods], but the jobs that involved machines tended to pay higher wages. So you often find that workers were initially happy to leave their lower-paid jobs and move to these new areas, but once they were there that's when they started to become agitators. They weren't resisting factories and the idea of mechanisation itself; it was the appalling working conditions that led them to advocate for change.

There's very little evidence, though, of workers returning to their rural jobs after leaving them for industrial work; they almost never went back. However unpalatable the city work was, there was something about it that was more attractive than the rural work.

Q: How was the Industrial Revolution portrayed in the art and literature of the period?

A: I often look at sources and records that have been written by working-class people who worked inside the factories, and they tend to be quite positive about their experiences. At the same time, most of the people who were producing art, literature and poetry were not the people working in the factories – they were the educated, middle-class elite.

So, a very different version of the Industrial Revolution emerges from those kinds of records. Artists, poets and writers tended to be very doubtful and sceptical about industrialisation. They viewed it as a dangerous development and were particularly concerned about the squalor of the cities, the smoke, and the possible dehumanisation that might come from working to the rhythm of the machine rather than the natural cycles of the planet.

Q: What, for you, is the most common misconception about the Industrial Revolution?

A: That the Industrial Revolution was a bad thing. For some reason, we, as a society, hold on to the idea that industrialisation was bad, that it was dislocating, and that it was particularly damaging for the workers. There is some truth to that, of course. There were some people for whom it was very bad; for children of five or six working very long hours every day, for example. I don't want to sugar-coat that aspect of it, but I don't believe it was bad for all poor working people. It was a time of winners and losers – and some of those winners were the working people themselves.

INTERVIEW: ELLIE CAWTHORNE
WORDS: CHARLOTTE HODGMAN

EMMA GRIFFIN is a professor of modern British history at the University of East Anglia. She is the author of five books, including *Bread Winner: An Intimate History of the Victorian Economy* (Yale University Press, 2020)

BEFORE THE REVOLUTION

Industrialisation changed the very fabric of British society, transforming small-scale textiles into big business

When we boil the kettle in the morning, drive in our internal combustion engines along tarmacked roads, sit in our heated homes or offices, and turn on our computers giving us instant access to a highly networked world we are doing things made possible by the wave of industrialisation that swept Britain from the mid 18th century. The fall of the Roman empire, the Reformation, and the Renaissance have all been put forward as some of the major turning points in human history. While unquestionably true, in terms of transforming the way that billions of humans experience life today, surely none can match the Industrial Revolution.

There is a saying that the past is a foreign country. If that's the case, Britain before the Industrial Revolution would have been on the other side of a vast and distant ocean. But what did life look like on the other side of that ocean? What powered the nation's economy, and how did people put food on the table in the centuries before mass industrialisation?

For the vast majority of the residents of the British Isles, the one and only source of their food was the land on which they lived. Today, more than four out of five Britons have set up home in a city. Back in the 16th century, as many as nine out of 10 lived in rural communities, often growing crops and tending livestock to feed themselves and their families, not to trade or sell. Few travelled beyond the villages in which they lived.

MOUTHS TO FEED

In the late medieval period, many of these villages were divided up equitably, with all members of the community entitled to farm the best land. Then in the Tudor period, cracks began to appear in this system as wealthier farmers increasingly bought up large tracts of land and barred anyone else from accessing them. Life was tough enough for subsistence farmers in pre industrial Britain. For many, the enclosure of land, as this practice was called, made it more precarious still.

Never was it more precarious than the 16th century, a period that witnessed crippling waves of poverty. Between 1500 and 1650, the population of England more than doubled from 2.5 million to 5.6 million. That equated to a lot more mouths to feed, and the country's agricultural economy simply couldn't keep up. Grain prices rose far faster than average wages, and for thousands of people the prospect of starvation was nothing more than a poor harvest away.

So when those poor harvests duly hit – most notably from 1594–97 – the

ABOVE: **Before the Industrial Revolution, people tended their own crops to survive**

BELOW: **The economy in Tudor times relied on a thriving sheep population for wool**

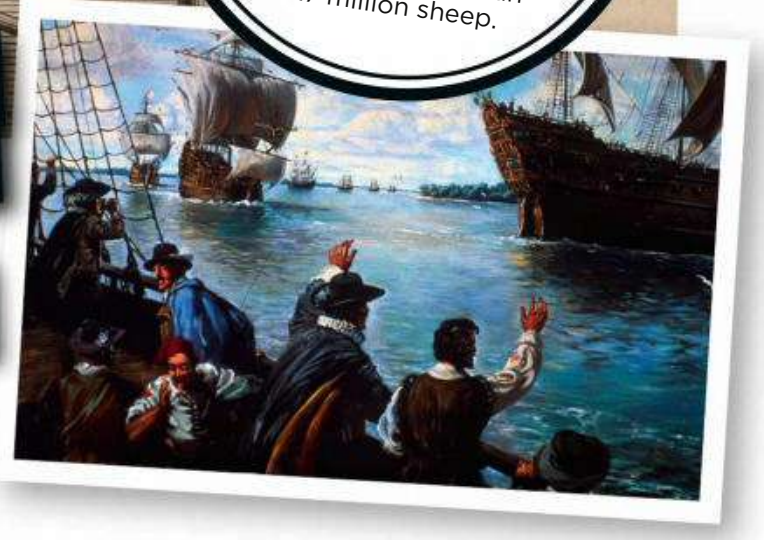
GETTY IMAGES X5, ALAMY X1

DID YOU KNOW?

FULL OF WOOL

In the Tudor economy of the mid-16th century, England and Wales produced approximately 50,000 sacks of wool per year, half of which was exported overseas. This roughly equates to more than 10.7 million sheep.

"THE GROWING TASTE OF DOMESTIC CONSUMERS FOR PRODUCTS SUCH AS SUGAR AND TOBACCO LINED THE POCKETS OF MERCHANTS"



suffering was almost unimaginable. Parish registers from the time paint a bleak picture of what the poorest in society endured in these barren years. The register for Kendal in Westmorland suggests that around 50 parishioners were buried in December in 1596 compared with a monthly average of just 20 in 1595. Yet the worst was still to come: in March 1597, the death toll reached 70.

In the face of such deprivation, it wasn't long before society's fabric began to fray. In September 1596, Edward Hext, a justice of the peace in Somerset, reported a spate of thefts, mostly carried out by vagrants. He complained that there had been food riots, with rioters declaring that "they must not starve, they will not starve". Class hatred was also beginning to take hold, he wrote, with the poor declaring that "the rich men have gotten all into their hands and will starve the poor".

COTTAGE INDUSTRIES

But the pre industrial period wasn't just a story of hardship and hunger, of plague and penury. Though England may not yet have been an industrial powerhouse, it was certainly an exporting one. And the product that overseas consumers craved most was wool. The trade was a cornerstone of the Tudor economy and this was reflected in the number of sheep that populated its countryside. In fact, so large did the nation's flocks grow (Sir Henry Fermor of Norfolk is reported as owning 15,500 sheep when he died in 1521) that the government attempted to place size limits on them.

By the time Sir Henry breathed his last, the wool trade had spawned another lucrative industry: cloth making. This saw raw wool being weaved at home and exported as cloth. Now, villages were bustling with spinsters spinning wool into yarn, and websters operating small hand looms in their own cottages.

Cloth making was a success story economically, and it wasn't the only one. Pre-industrial Britain was a patchwork of these thriving 'cottage industries', with different regions specialising in different products: from metal production in the Midlands to coal mining in the North East. In the cities, artisans and craftsmen employed apprentices.

Though these were often small and domestic operations, they were increasingly driven by wide scale, international factors one of which was colonialism. The establishment of colonies in the Americas opened up new market goods with consumers buying up everything from pickled pork to wheelbarrows. Meanwhile, the growing taste of domestic consumers for products such as sugar and tobacco, which were invariably harvested in the colonies by enslaved people, lined the pockets of merchants operating in booming ports such as Liverpool and Bristol.

By the mid 18th century, this consumer revolution had persuaded a new wave of entrepreneurs to throw caution to the wind, scale-up operations on a huge scale and invest in factories. As they did so, a posse of new technologies arrived on the scene that would transform the production process. In 1769, Richard Arkwright invented a spinning frame, which soon meant that thread could be produced at a volume almost unthinkable a few years before. A decade later, James Watt and Matthew Boulton revealed to the world a steam engine that could efficiently power factory machinery.

By the end of the 18th century, new roads and canals had made the cost of transporting goods and people cheaper than ever before. The following century, the rise of the railways fuelled to a large extent by the riches of empire linked the country's ports, towns and rapidly growing metropolises. The industrial age had well and truly arrived.

WORDS: SPENCER MIZEN

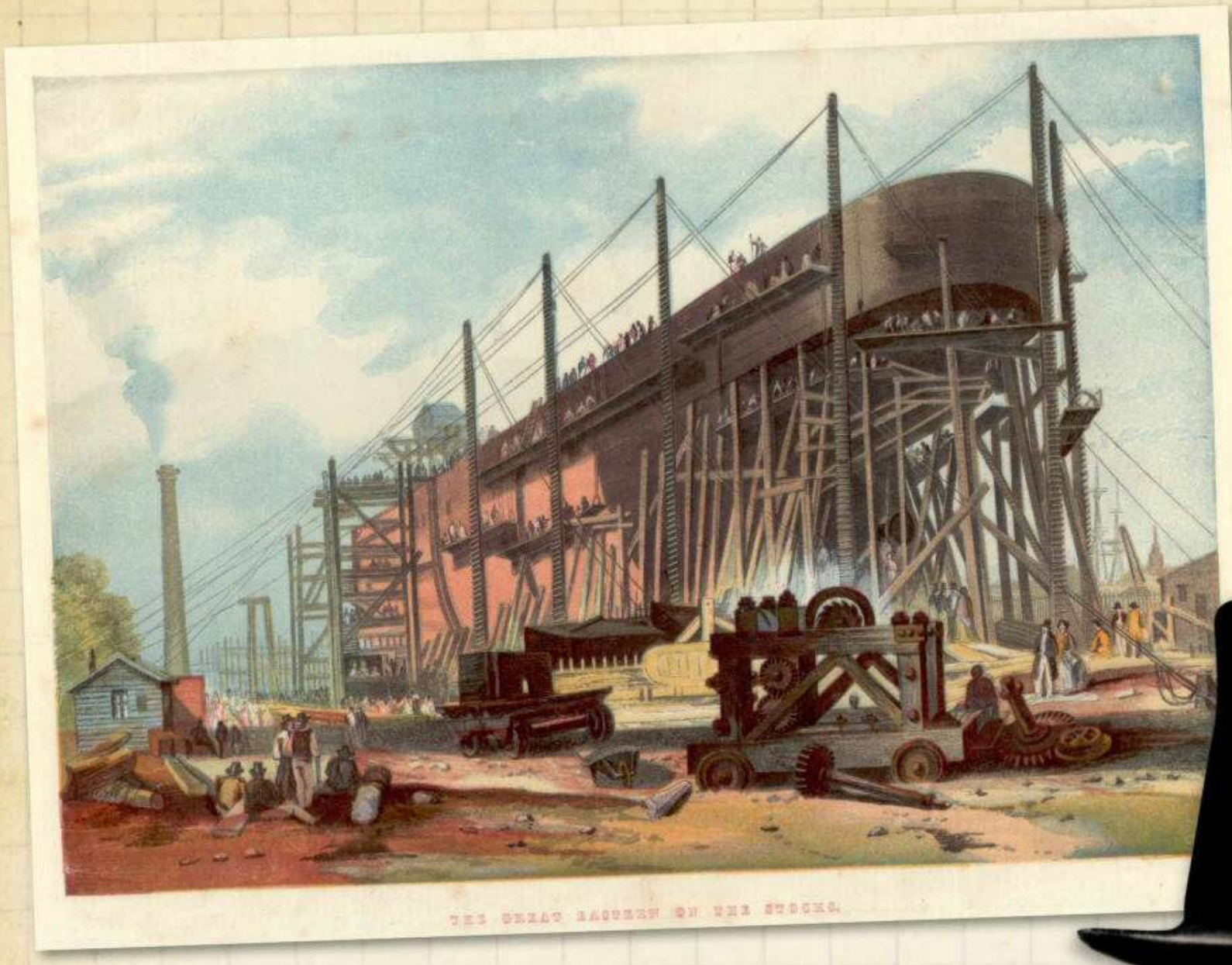
TOP LEFT: **A woodcut of a cloth-making shop – a lucrative business in the 16th century**

ABOVE: **Making textiles before the revolution involved spinning by hand in the home, in what were called cottage industries**

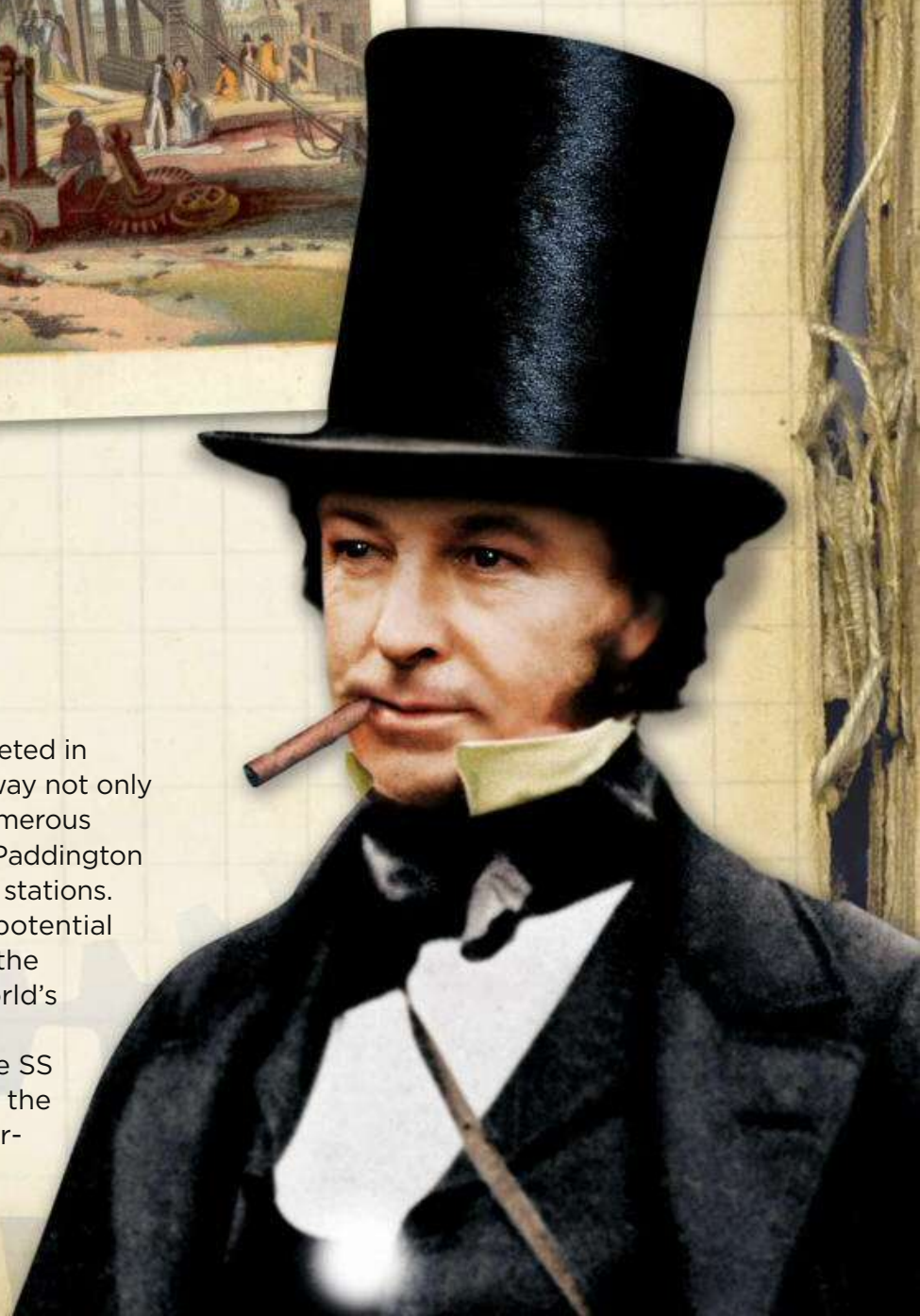
ABOVE RIGHT: **A range of new commercial opportunities emerged thanks to goods being shipped to and from the colonies**

TOP 11 INVENTORS OF THE INDUSTRIAL REVOLUTION

The Industrial Revolution was a time of discovery and innovation – and these 11 great minds helped lead the way



Brunel's SS *Great Eastern (left)* was by far the largest ship in the world when it was launched in 1858, measuring more than 200 metres in length



Isambard Kingdom Brunel

BEST KNOWN FOR: **Great Western Railway, SS *Great Britain***

One of the most recognisable figures of the Industrial Revolution, Isambard Kingdom Brunel (1806–59) was a prolific engineer who created everything from bridges and ships to railways.

Born in Portsmouth, Brunel began his career during the 1820s, when he assisted his father, Marc, during the construction of the Thames Tunnel – the world's first tunnel to be built underneath a navigable river. In 1831, he won a contest to design a bridge over Bristol's Avon Gorge (*see page 40*), before embarking on a project to connect London and Bristol by rail. Completed in 1841, Brunel's Great Western Railway not only boasted 116 miles of track, but numerous bridges, viaducts, and the iconic Paddington and Bristol Temple Meads railway stations.

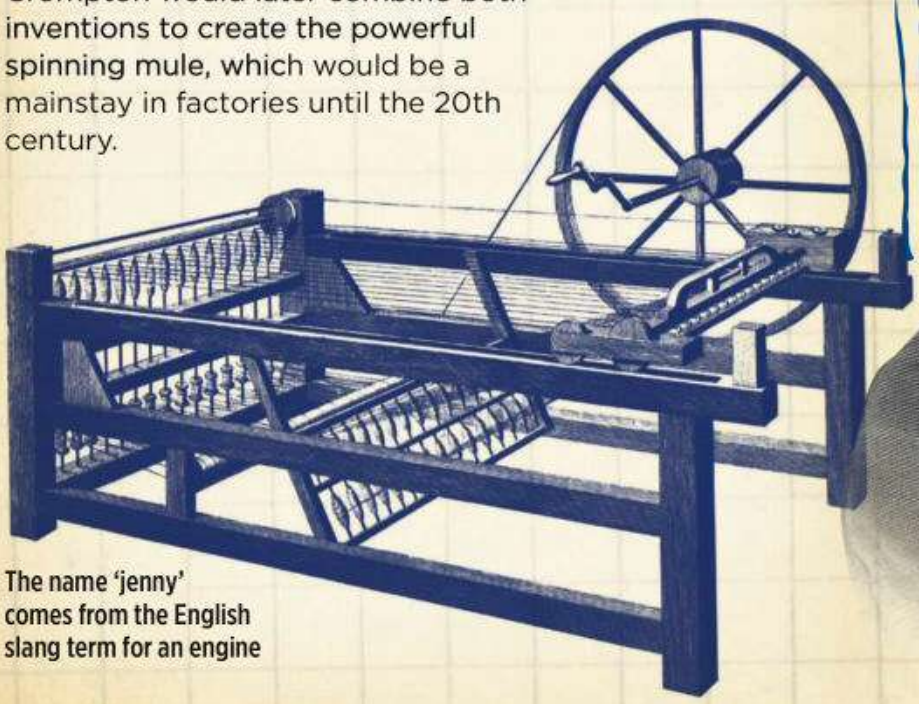
Brunel also saw the maritime potential of steam technology, designing the SS *Great Western* (1838), the world's first steamship to be used for transatlantic travel, as well as the SS *Great Britain* (launched in 1843), the world's first iron-hulled, propeller-driven steamship.

DREAMSTIME X1, GETTY IMAGES X7, ALAMY X2

James Hargreaves

KNOWN FOR: **Spinning jenny**

Textile manufacture was one of the main forces behind the Industrial Revolution, evolving from a modest cottage industry into a multi-million-pound behemoth. One of the key figures behind this shift was Lancashire-born loom weaver James Hargreaves (c1720–78), who, in 1770, patented a device known as the spinning jenny. Unlike traditional spinning wheels, Hargreaves' contraption boasted several vertical (as opposed to horizontal) spindles, allowing multiple threads of cotton to be spun at the same time. Although not as effective as Richard Arkwright's water frame (*see page 41*), Samuel Crompton would later combine both inventions to create the powerful spinning mule, which would be a mainstay in factories until the 20th century.

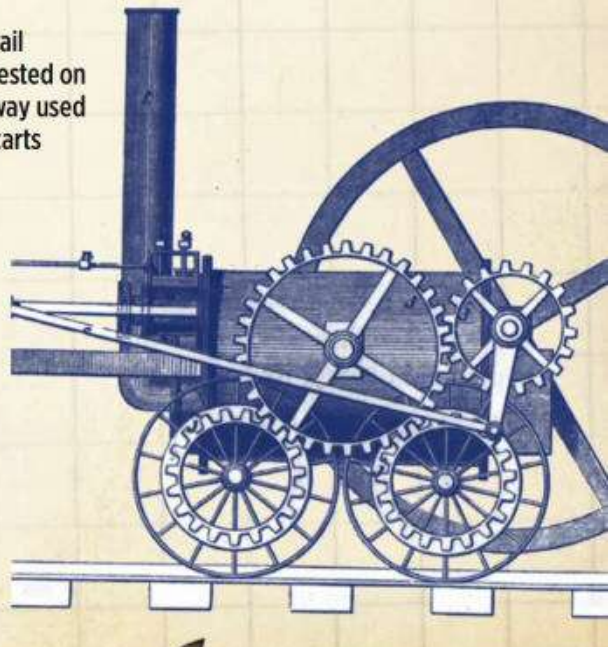


The name 'jenny' comes from the English slang term for an engine

Richard Trevithick

KNOWN FOR: **Steam locomotive**

The world's very first railway journey, of around 10 miles, took place in south Wales in 1804, masterminded by engineer Richard Trevithick (1771–1833). The Cornishman had previously developed a series of high-pressure road engines, and was invited to Samuel Homfray's ironworks at Penydarren to see whether he could create a rail-mounted version. Trevithick was ultimately successful in his endeavours, and the ensuing journey saw his experimental locomotive haul 10 tonnes of iron and 70 men on wagons. Within a century, railways had been built all over the world, with trains able to reach speeds of more than 60mph – a far cry from the horseback gallop of the past. Sadly, Trevithick was not very business minded, and died penniless.



Trevithick's first rail locomotive was tested on an existing tramway used by horse-drawn carts

Ada Lovelace

KNOWN FOR: **Computer programming**

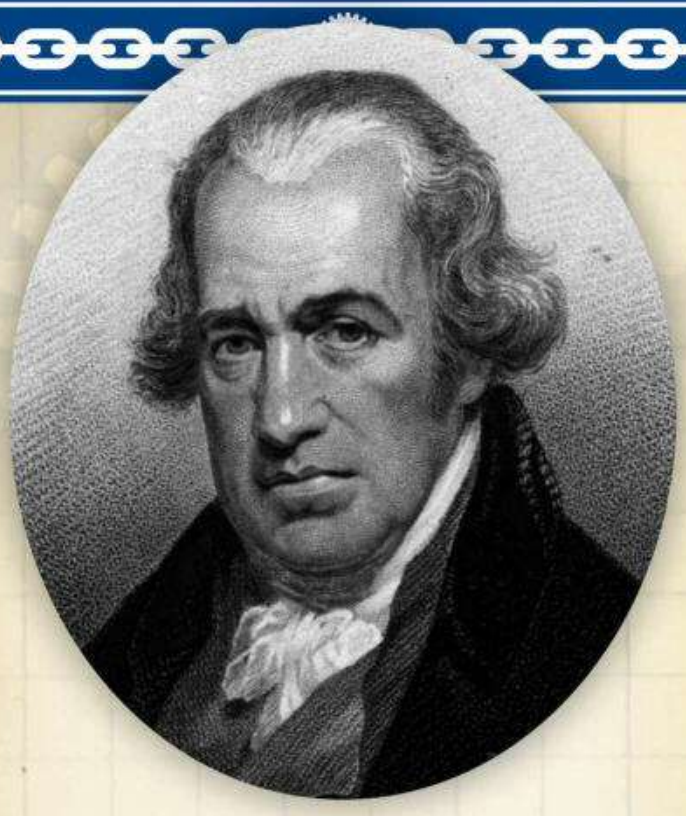
Thinking about the early origins of computer programming probably conjures up images of Alan Turing and his codebreaking team at Bletchley Park during World War II. However, its origins actually stretch back to the early 19th century, and the work of pioneering mathematician Ada Lovelace (1815–52). The daughter of famed poet Lord Byron and Annabelle Milbanke, Lovelace received private tuition in mathematics as a child (exceptionally rare for a girl), and became something of a prodigy.

At the age of 17, Lovelace crossed paths with scientist Charles Babbage, who was attempting to build an 'Analytical Engine' to carry out complex mathematical calculations. Recognising the potential, she wrote extensive notes outlining the possibilities of Babbage's creation, which are now viewed as being the first comprehensive comment on computer programming. Indeed, Babbage was so impressed with her mathematical prowess that he gave her the moniker 'the Enchantress of Numbers'.

Sadly, Lovelace died aged 36 from cancer, and was buried next to the father she hardly knew, who had died at the same age. ▶

A lover of mathematics from a young age, Ada used her skills to beat the odds in games of chance, but racked up huge gambling debts

"BABBAGE GAVE HER THE MONIKER 'THE ENCHANTRESS OF NUMBERS'"



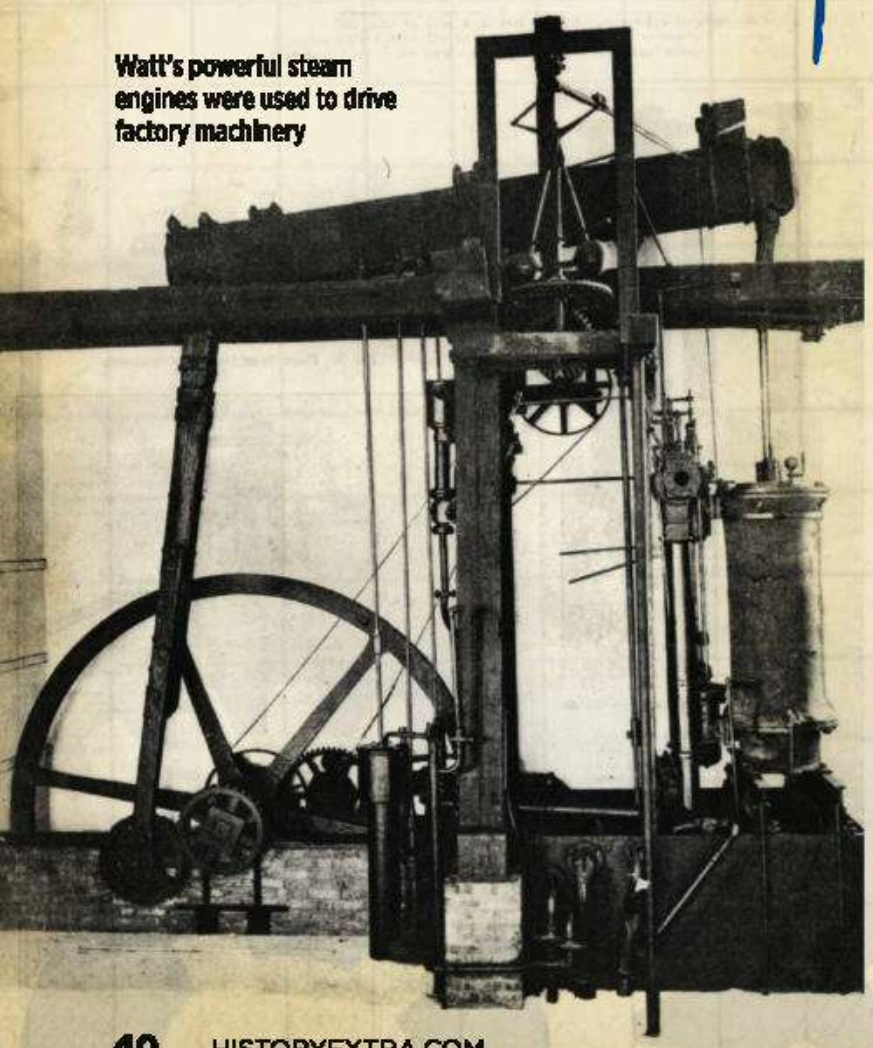
James Watt

BEST KNOWN FOR: **Watt engine**

The world's first practical steam engine was invented by Thomas Newcomen, who designed a device in 1712 for pumping water out of coal mines. However, the man to recognise the full potential of steam power was Scotsman James Watt (1736–1819), who adapted and enhanced Newcomen's engine by adding a separate condensing chamber.

Together with his business partner, Matthew Boulton, Watt began manufacturing the engines on a massive scale, and soon, they were being installed in mines, mills, canals and waterworks all across the country, helping to drive the Industrial Revolution. The inventor was made a fellow of the Royal Society in 1785, and the watt – the standard measure of electrical power – was later named in his honour.

DREAMSTIME XI, GETTY IMAGES X6, STEWY X1



Watt's powerful steam engines were used to drive factory machinery

Sarah Guppy

BEST KNOWN FOR: **Bridge designs**

Some of Britain's most well-known bridges, though designed by men, may not have existed were it not for a woman named Sarah Guppy (1770–1852). Born in Birmingham, Guppy settled in Bristol and took out numerous patents. One such invention, a system to keep barnacles off ships, earned her a lucrative contract with the Admiralty and between £20,000–£40,000. However, it is Guppy's work on bridges that has garnered her the most attention, patenting a design in 1811 for a type of suspension bridge mounted on chains.

Although Guppy's rumoured influence on Isambard Kingdom Brunel's design for the Clifton Suspension Bridge (completed in 1864) has most likely been overstated, she certainly does deserve credit for aspects of Thomas Telford's Menai Bridge (1826), which connects Anglesey to the Welsh mainland.

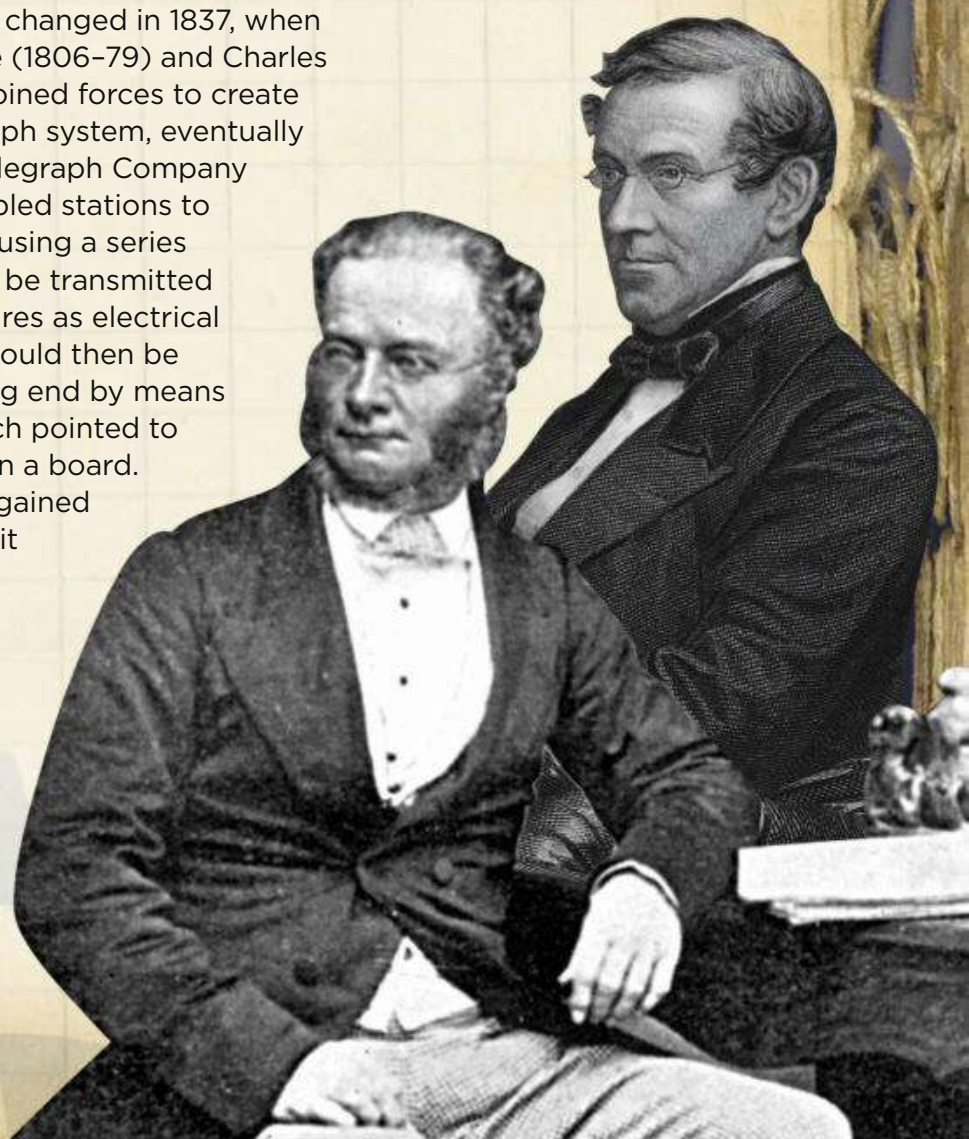
Sarah Guppy was the first woman to receive a patent for a bridge design

William Fothergill Cooke and Charles Wheatstone

BEST KNOWN FOR: **Commercial telegraph system**

Along with developments in manufacture and transport, the Industrial Revolution also led to new breakthroughs in communication. Whereas the postal service had previously been the only option when it came to conveying messages over long distances, this changed in 1837, when William Fothergill Cooke (1806–79) and Charles Wheatstone (1802–75) joined forces to create their commercial telegraph system, eventually forming their Electric Telegraph Company in 1846. The system enabled stations to tap out short messages using a series of buttons, which would be transmitted through underground wires as electrical signals. The messages would then be displayed at the receiving end by means of rotating needles, which pointed to letters of the alphabet on a board.

In 1845, the invention gained national attention when it was used in the capture of John Tawell, who had murdered his mistress near Slough and attempted to escape by train. Using a newly installed telegraph system, local police sent a description of Tawell to Paddington station, where he was apprehended.

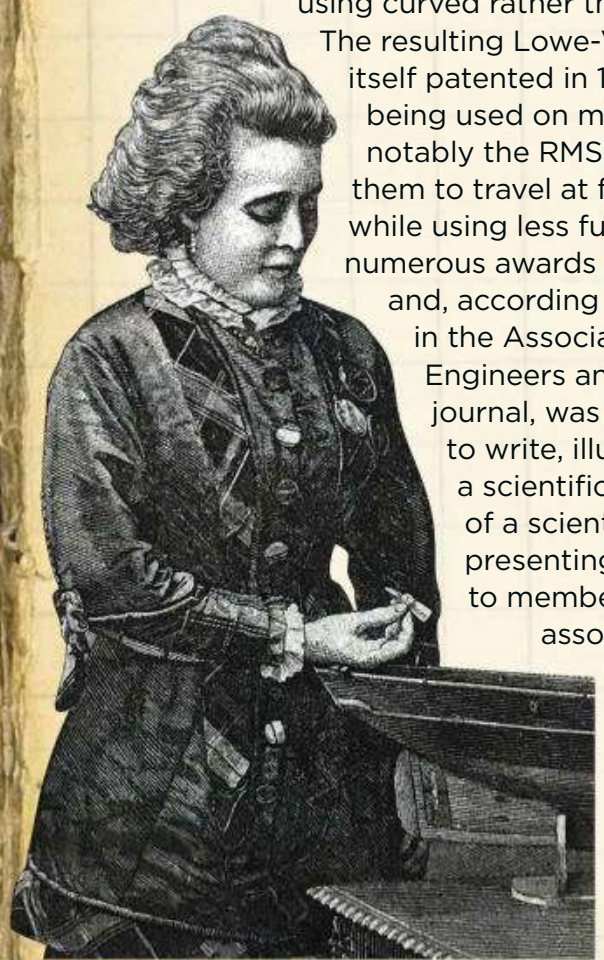


Although they didn't invent electric telegraphy, Cooke (*left*) and Wheatstone (*right*) developed the first commercially viable system

Henrietta Vansittart

BEST KNOWN FOR: **Lowe-Vansittart propeller**

Henrietta Vansittart (1833–83) is regarded as being one of Britain's first female inventors. Her late father, James Lowe, had patented a stern-mounted marine propeller in 1838, but Henrietta significantly improved the design, using curved rather than straight blades. The resulting Lowe-Vansittart propeller, itself patented in 1868, would end up being used on many famous ships, notably the RMS *Lusitania*, enabling them to travel at faster speeds while using less fuel. Henrietta won numerous awards for her invention, and, according to an obituary in the Association of Foreman Engineers and Draughtsmen's journal, was the first woman to write, illustrate and read a scientific paper in front of a scientific institution, presenting her work to members of that association in 1876.

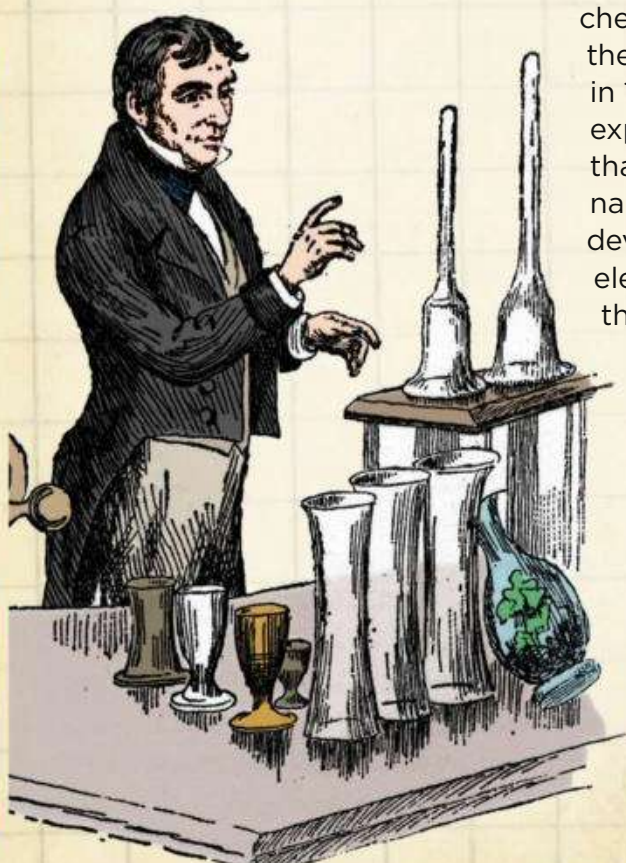


Vansittart as depicted on the cover of an 1882 pamphlet in which she told the story of her propeller's creation

Michael Faraday

BEST KNOWN FOR: **Electric generator**

In 1812, a young Michael Faraday (1791–1867) was offered a ticket to attend series of lectures by Sir Humphry Davy – inventor of the mining safety lamp. Despite having little formal education, Faraday was fascinated by the lectures, and sent Davy a bound copy of his meticulous notes. Impressed by the young man's work, Davy secured Faraday a job as an assistant at the Royal Institution, where he learned the principles of chemistry and rose to become the director of its laboratory in 1825. But it was Faraday's experiments with electricity that made him a household name. In 1831, 10 years after developing the world's first electric motor, he demonstrated that it was possible to produce an electric current by passing a magnet through a coil of copper wire – a phenomenon known as electromagnetic induction. This discovery paved the way for the first electric generators, which would ultimately change the world.



Michael Faraday began his career as a chemist, but his greatest discoveries resulted from his work on electricity and magnetism

Richard Arkwright

BEST KNOWN FOR: **Water frame**

Born into a large family, Richard Arkwright (1732–92) was determined to escape the poverty he had grown up in and make his fortune. While running a wig company in his native Lancashire, Arkwright also became interested in textile manufacture, and set about building a mechanical spinning machine that could create tough yarn, with minimal physical labour required. After enlisting the help of a clockmaker named John Kay, he came to realise that water power – rather than horse power – was the way forward, and developed a spinning frame that could be driven by water wheels. These could be operated by unskilled workers, and spin huge quantities of yarn quicker than anyone was capable of doing manually.

But possibly just as revolutionary as the water frame was Arkwright's factory system. After building his first water-powered cotton mill at Cromford, Derbyshire, in 1771, the industrialist's mobilisation of a large workforce, employed around the clock on long and gruelling shifts, would soon be replicated elsewhere.

WORDS: EMMA SLATTERY WILLIAMS

"ARKWRIGHT CAME TO REALISE THAT WATER POWER WAS THE WAY FORWARD"

Arkwright also created a rotary carding engine that untangled and cleaned cotton fibres before they were spun

FROM FAMILY TO FACTORY

The Industrial Revolution saw thousands of women enter the workplace alongside men – but it was far from emancipatory

ABOVE: **Even when women downed tools, they were still expected to look after their children and act as homemakers – with no additional financial support from the state**

TOP: **A late 19th-century image shows a group of 'pit lasses', employed to work at the surface of coal mine. An earlier law had explicitly banned women from working below ground**

GETTY IMAGES X3

The Industrial Revolution caused a dramatic shift in women's roles in society. Before industrialisation, the household would have been the centre of production, and women's work largely confined to the domestic sphere, but no less physical for it. Tasks such as fetching water, and tending livestock would have kept women as busy as clothing and feeding a family, while many also took other work into their home such as hand spinning or weaving. Cottage industry, as it was called, didn't entirely end with the arrival of large scale manufacturing, but the advent of machinery had an irreversible impact on women's lives.

As machines replaced individual labour and burgeoning industries needed coal, women became part of the growing working classes that laboured in mines and mills. In the late 18th century, many families would seek employment together, with husband, wife and children all working at the same factory or pit, while for many single women, taking a job outside the home offered the chance of greater independence.

But women were seen as less physically strong and skilled than men and were paid less. Many employers were quick to exploit this cheaper option, and soon, tasks such as printing and working at spinning machines that didn't require as much strength and were easy to learn, became seen as 'women's labour'.

WORK-LIFE IMBALANCE

Despite the disparity in pay, the conditions in many factories were no less dangerous for women. They could work as many as 80 hours in a week, were offered few breaks, and often served inedible food. In 1832, 23 year old Elizabeth Bentley was interviewed by a parliamentary investigation into conditions for textile workers. She described working in the card room of a flax mill near Leeds. "It was so dusty, the dust got up my lungs, and the work was so hard… I got so bad in health, that when I pulled the baskets down, I pulled my bones out of their places."

As well as the long hours and physical demands of factory labour, the domestic roles traditionally viewed as women's work continued unpaid. Tasks such as cooking, cleaning and childcare still needed to be carried out. Perhaps unsurprisingly, few employers were understanding. Bentley described a practice known as 'quartering': "If we were a quarter of an hour too late, they would take off half an hour; we only got a penny an hour, and they would take a halfpenny more."

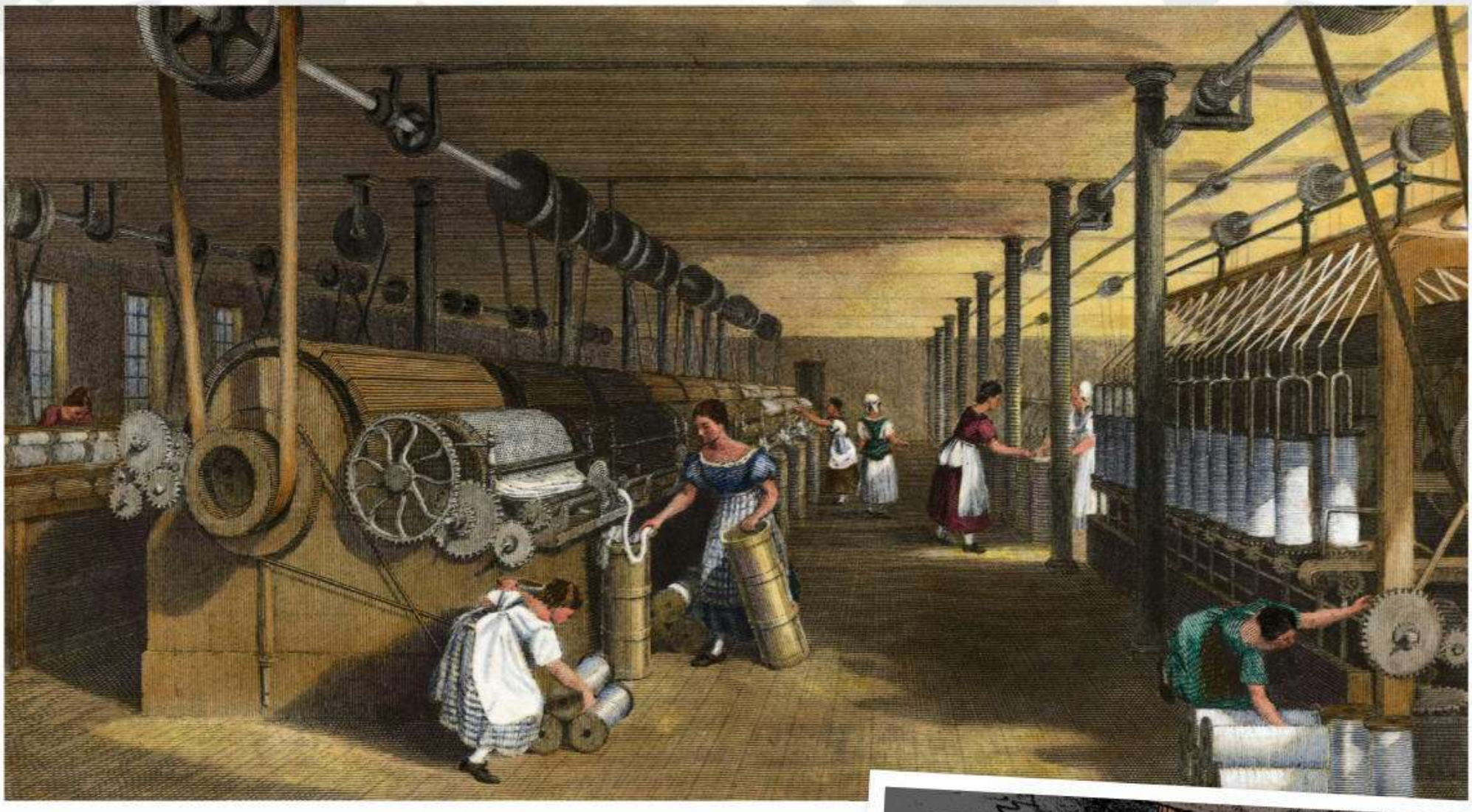
Another common role was in the mines of Lancashire and Yorkshire, where women laboured underground alongside men in physically demanding roles until the mid 19th century.

Isabel Wilson, a 38 year old coal putter (someone who pushed tubs of coal from the coal face to the pit eye) was interviewed as part of Lord Ashley's Mines Commission of 1842. She told how the dual roles of having children and producing for a family came with **immense hardship. "When women have children thick [fast] they are compelled to take them down early. I have been married 19 years and have had 10 bairns; seven are in life," she said.** One job carrying coals "caused me to miscarry five times from the strains, and was gai ill after each. Putting is no so oppressive; **last child was born on Saturday** morning, and I was at work on the **Friday night."**

But jarringly, it was not such testimony in Lord Ashley's report that caused the most public outcry. Pushing carts underground was hot work, and both young men and women would strip to the trousers in efforts to keep cool. One small detail in the report noted that some women were working topless alongside men. Outrage in the press fuelled a belief that mining girls were being corrupted by their surroundings, and making bad wives and mothers. It was of no matter that the investigators found just one pit where females worked without tops (the Hopwood pit at Barnsley, which was labelled "a nursery for juvenile vice"). It wasn't long before the Mines and Collieries Act of 1842 had banned women from underground work to protect their health and morals.

But ultimately, as legislation forced more women away from the workplace for better or worse, ideas of gender evolved to match this new dynamic; men who went out to work were seen as breadwinners and providers, and by the mid 19th century the female ideal had become that of mother, moral guardian and homemaker.

WORDS: ELINOR EVANS



CHILDREN OF THE REVOLUTION

Britain's mills and mines were only too willing to exploit the labour of the youngest members of society

ABOVE: **An 1848 illustration depicts a young boy helping a woman haul a sack of coal through a mine shaft. Children were often made to work inside confined spaces due to their small size**

TOP: **An engraving shows workers inside the carding room of a textile mill, c1835. Despite the bright and breezy appearance of this scene, mills were far from glamorous**

Child labour was an essential raw material for the success of the Industrial Revolution, a key component of the growing prosperity of the age's entrepreneurs. The workforce was cheap or free, in the case of orphans and children from poor families offered so called 'parish apprenticeships' and emotionally malleable. And it was in shockingly high supply. By 1821, almost half of Britain's labour force was below the age of 20.

Before industrialisation, any children who were employed were mostly engaged in agriculture, usually in roles that didn't require particular strength or serious physical effort; bird scaring was a common vocation. However, come the Industrial Revolution, the demands on this junior workforce became much higher. As historian Emma Griffin notes in her book *Liberty's Dawn: A People's History of the Industrial Revolution*, it was open season: "Early industrial Britain was a booming economy with an insatiable appetite for strong backs and nimble fingers."

There were clear benefits to employing children in the smoky factories and dark satanic mills of the Industrial Revolution. In the textile mills, children were small enough to squeeze under the moving machinery in order to keep it clean from dirt and grime. Those employed underground in coal pits might be utilised in tunnels and shafts that no adults could fit through, operating ventilation doors in pitch black darkness. Similarly, other children might find their size capitalised upon when it came to chimney sweeping, being sent into narrow spaces as 'climbing boys', a pursuit often carried out naked as the pockets of their uniforms would fill with soot, making their passage, already awkward, much more difficult.

RISKING LIFE AND LIMB

The average age of a child worker in the pre industrial era was around 10, although this varied widely between regions. In order to keep up with the demands of the new heavy industries, the working age significantly lowered when the factories and mills opened. The opportunities were welcomed by factory owners and hard-up families alike; at ▶

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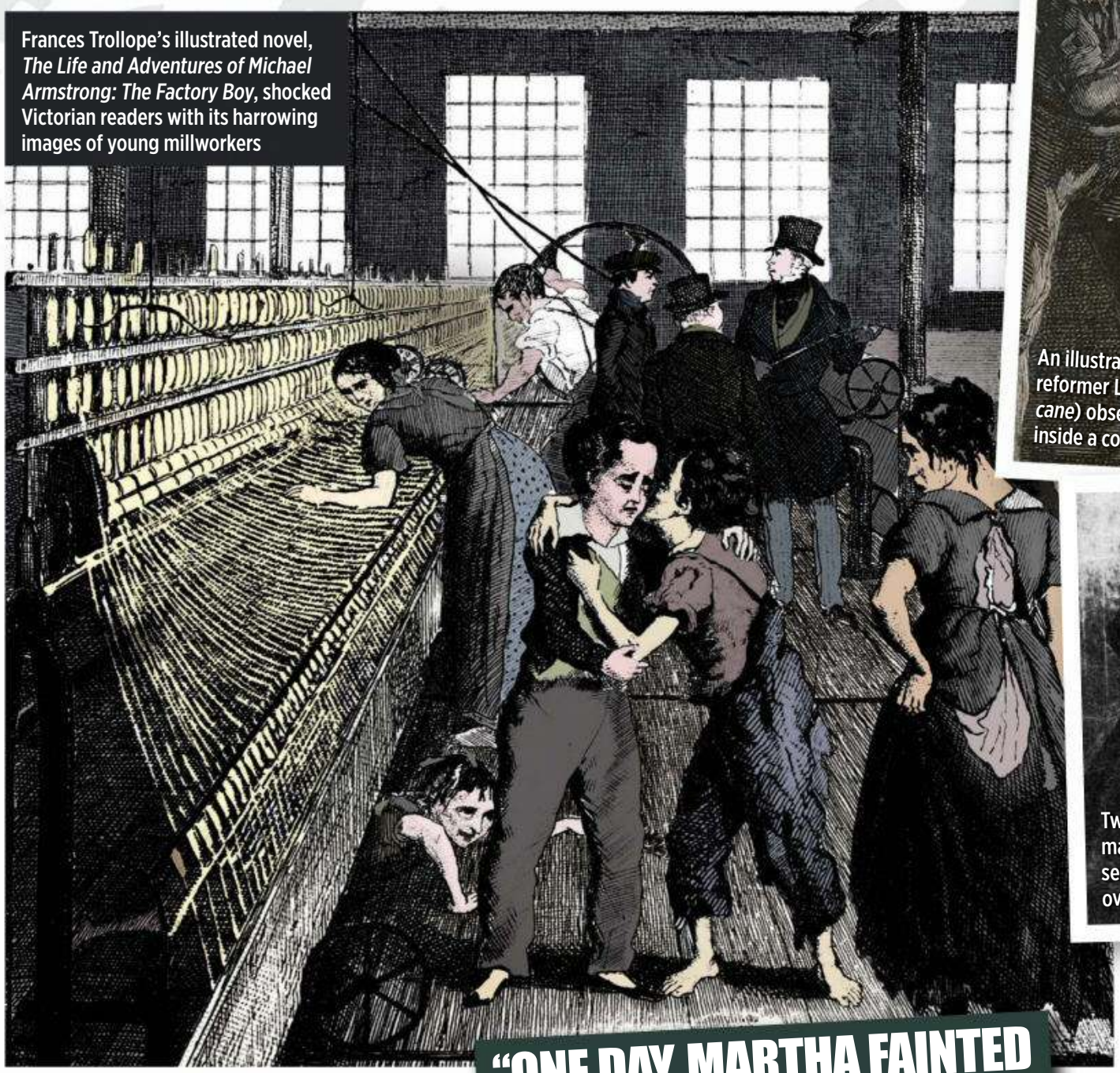
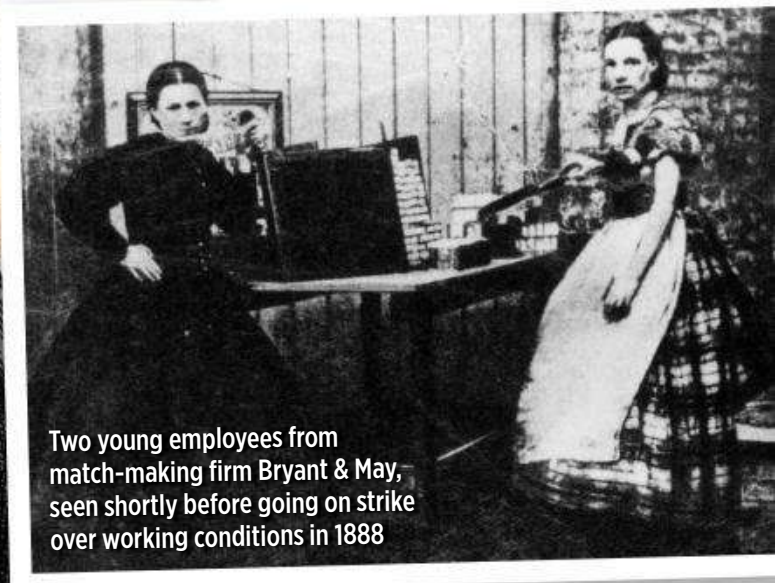


Frances Trollope's illustrated novel, *The Life and Adventures of Michael Armstrong: The Factory Boy*, shocked Victorian readers with its harrowing images of young millworkers

An illustration shows social reformer Lord Ashley (*holding cane*) observing child workers inside a coal mine, c1840



Two young employees from match-making firm Bryant & May, seen shortly before going on strike over working conditions in 1888

"ONE DAY, MARTHA FAINTED AND CAUGHT HER HAND IN THE WHIRRING MECHANISM, WHICH SEVERED ALL FIVE FINGERS. SHE WAS SACKED"

the time, a third of families defined as poor didn't have a main breadwinner. As Emma Griffin observes, "many working parents, who remembered the gnawing hunger of their own childhood only too well, grasped eagerly at these opportunities. The outcome? Children were thrust into the workface at ever younger ages."

Industrialisation not only drove down the average age that children started work (it was as low as eight and a half in the early 19th century), but it also placed them in more dangerous working environments, and thus in significantly greater jeopardy. Those working in glass factories could be blinded; match girls worked with toxic chemicals. Injuries were common and fatalities were far from unknown.

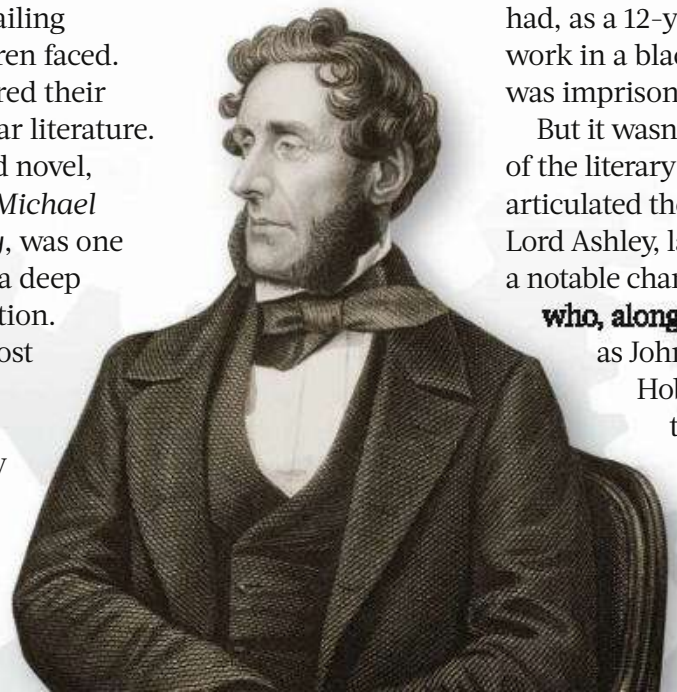
In 1859, 13-year-old Martha Appleton was working in a textile mill in Wigan as a scavenger, the term used for those children whose job was collecting loose cotton that had collected under fast-moving machinery. One day, Martha, presumably as the result of the long hours, fainted and caught her hand in the whirring mechanism, which severed all five fingers. With only one usable hand, she was summarily sacked by the unsympathetic mill owner. In a way, Martha was fortunate. There are examples of scavengers being crushed to death while going about their work.

THE ROAD TO REGULATION

As the goldrush of heavy industry continued to gather momentum, voices of dissent began to gather, railing against the conditions children faced. One way these voices delivered their message was through popular literature. Frances Trollope's illustrated novel, *The Life and Adventures of Michael Armstrong: The Factory Boy*, was one such publication that made a deep impact on the wider population. Told in monthly parts that cost a shilling apiece, Trollope's book might have been fictional, but it drew directly from the sharp and harsh experiences of the children of the Industrial Revolution. She explained that the purpose of her unfolding tale of this fictional Mancunian child was to "place before the eyes of Englishmen, the hideous mass of injustice and suffering to which thousands of infant labourers are subjected, who toil in our monstrous spinning mills". Telling of very real pain and exploitation, the book did indeed become a crucial tool in the fight to improve the working conditions of all factory and mill workers, but children in particular.

Trollope was far from the only novelist to present the grim reality of the Industrial Age to middle-class Victorian readers. Charles Kingsley's *The Water Babies* questioned the ethics behind child labour, while the harsh conditions of factory life became a recurring theme in the novels of Charles Dickens who had, as a 12-year-old boy, been forced to work in a blacking factory after his father was imprisoned in a debtors' jail.

But it wasn't just celebrated members of the literary world who highlighted and articulated the plight of the child worker. Lord Ashley, later Earl of Shaftesbury, was a notable champion of children's rights who, alongside other campaigners such as John Fielden and John Cam Hobhouse, raised the issue in the chambers of parliament. The MP Michael Sadler led a parliamentary commission into child



Lord Ashley, later Earl of Shaftesbury (1801–85), was an ardent supporter of child labour reforms

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labour, looking at both the ethics and the children's treatment. Legislation was drawn up, namely the Factories Regulation Bill, which sought to outlaw the employment of children under the age of nine, to limit work shifts to a maximum of 10 hours for those aged between nine and 18, and to eliminate altogether night work for those under 18.

Speaking in the House of Commons during the bill's second reading in March 1832, Sadler expressed the urgent need for the legislation "to liberate children and other young persons employed in the mills and factories of the kingdom from that over-exertion and confinement which common sense, as well as long experience, has shown to be utterly inconsistent with the improvement of their minds, the preservation of their morals, or the protection of their health: in a word, to rescue them from a state of suffering and degradation which, it is conceived, the children in the industrious classes in hardly any other country endure, or ever have experienced, and which cannot be much longer tolerated".

Sadler's Factories Regulation Bill or Ten Hours Bill, which recommended limiting the working day for children in the ways outlined above, as well as allowing each child two hours of educational instruction every day, was never passed, but it did – along with a similar bill put forward by Lord Ashley – form the basis of the Factory Act 1833, which itself included most of these provisions.

Initially, these strictures were difficult to enforce, despite the act appointing factory inspectors to uphold its demands. Factory owners would lie about the ages of their employees, while their record-keeping when it came to hours worked were often economical with the truth.

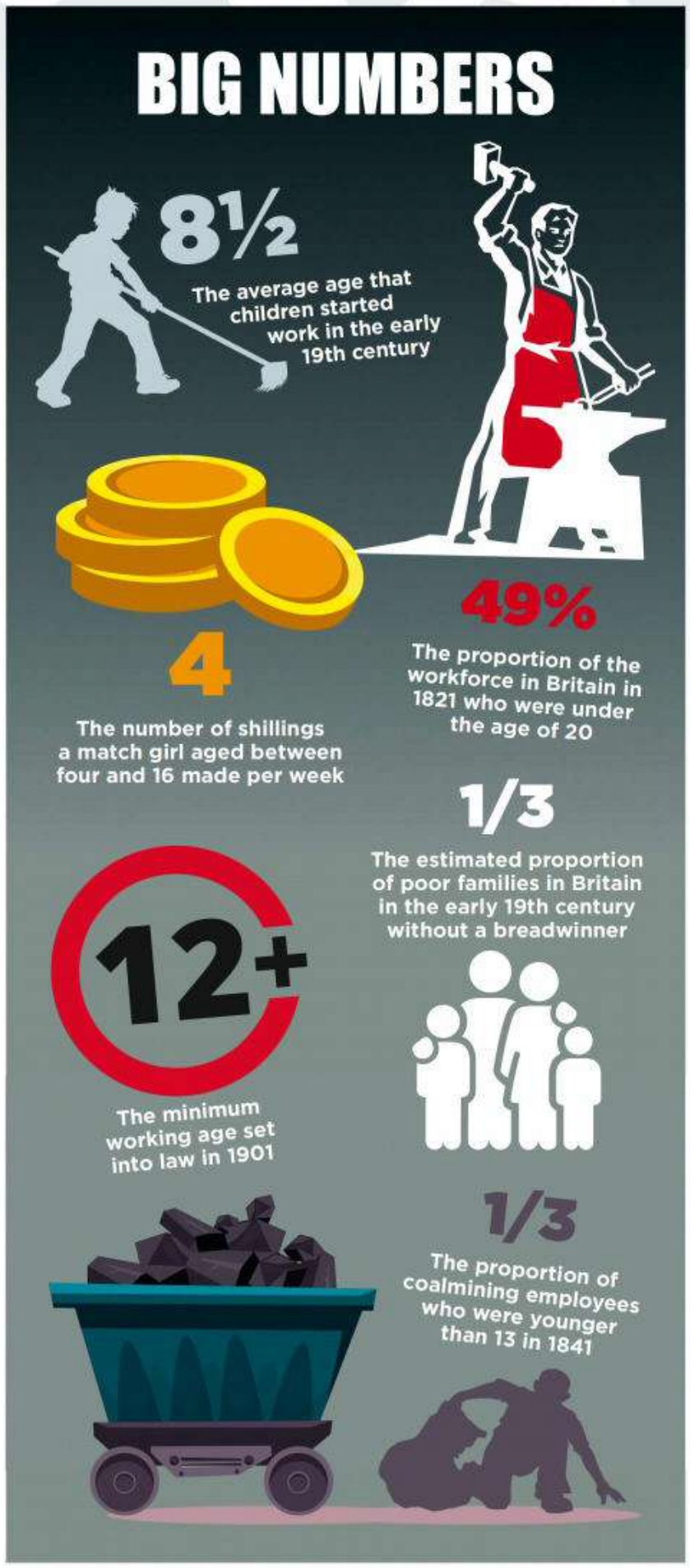
AN END TO SUFFERING

Over time, though, thanks to a steady stream of further legislation, conditions for Britain's child workforce – at least those working in the textile industry – steadily improved. The Factory Act of 1844 put a further cap on the lengths of the shifts worked by those between the ages of eight and 13: this was now set at six and a half hours per day. Three years later, another act brought the daily amount for 14 to 18 year olds down to a maximum of 10 hours. In 1867, the legislation that had been drawn up specifically for the textile sector was applied to other factories where 50 or more people were employed, and brought regulation to other specified industries, even if the industrialists themselves were reluctant to enforce it. These unscrupulous owners were increasingly on the wrong side of history, denounced by Karl Marx in an 1864 address as being "vampire-like", their businesses living "by sucking blood, and children's blood too".

Regulation significantly contributed to declining numbers in child labour, as did the rise of trade unions as workers showed more willingness to organise collectively. Technology played an important part, too. Not only did it increasingly require employees with a decent level of education, but the rise in automation removed many menial tasks hitherto carried out by a factory's youngest employees.

The emphasis was now on education, previously the preserve of the offspring of the wealthier classes. In 1870, the Education Act laid the foundations for a compulsory, state-funded education system for all children, helping to remove them from the danger and ill treatment they encountered on the factory floor. The tide had turned. Children, previously seen as an exploitable, low-cost workforce, were now regarded as individuals in their own right. In 1889, the National Society for the Prevention of Cruelty to Children was established and, a dozen years later, the minimum working age in Britain was raised to 12. The littlest children would suffer no more.

WORDS: NIGE TASSELL


BIG NUMBERS
8½
The average age that children started work in the early 19th century
4
The number of shillings a match girl aged between four and 16 made per week
49%
The proportion of the workforce in Britain in 1821 who were under the age of 20
12+
The minimum working age set into law in 1901
1/3
The estimated proportion of poor families in Britain in the early 19th century without a breadwinner
1/3
The proportion of coalmining employees who were younger than 13 in 1841

An 1889 illustration shows three girls being taken into the care of the National Society for the Prevention of Cruelty to Children, having been found begging

INDUSTRY STATS: PROGRESS AND ITS PRICE

Production and populations in Britain surged during the Industrial Revolution, but at the cost of the workers

WORKER CONDITIONS

1/5

By the early 1860s, an estimated one-fifth of workers in Britain's textile factories were younger than 15

4

The number of inspectors appointed to investigate the thousands of factories across Britain after the Factory Act of 1833

50%

According to one study, real wages, adjusted for inflation, increased 50 per cent between 1830 and 1875

12

The maximum number of hours a day that could be worked by children aged nine to 16, as outlined by the 1819 Factory Act

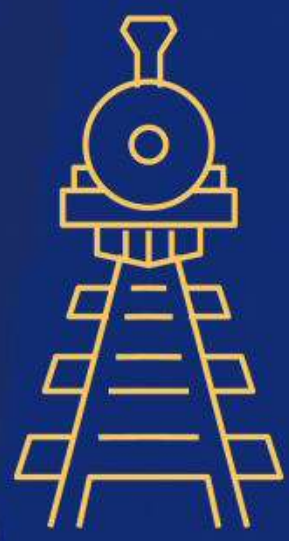
TRANSPORTATION

>7,000

The amount, in miles, of rail track across Britain by 1852

4,000

The number of miles of canal in Britain at the peak of 'canal mania'



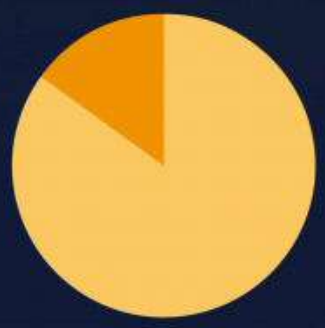
25

The length, in miles, of Britain's first railway line, built by the Stockton and Darlington Railway company and opened in 1825

POPULATION

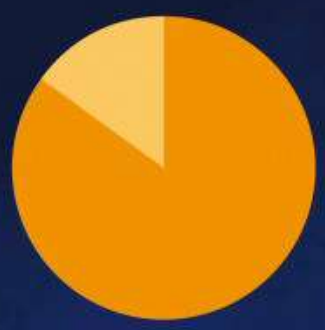
15%

The proportion of the English population living in urban areas in the mid-18th century



85%

The proportion of the English population living in urban areas by 1900



11,000,000

The approximate British population in 1801 – compared with around 5–6.5 million a century earlier.

PUBLIC HEALTH

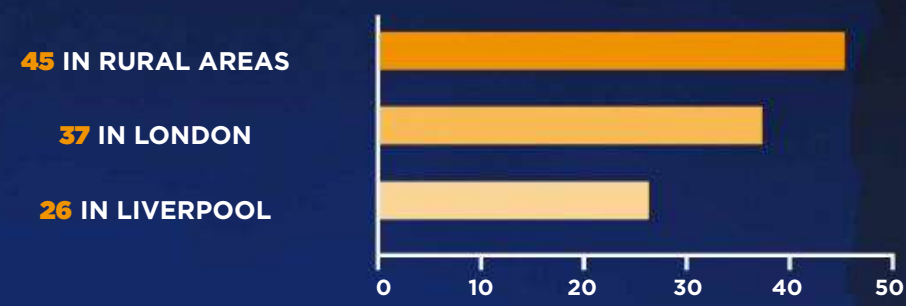
15

The average age of death for a factory worker in Liverpool in 1840

11,000

The number of houses in Manchester, out of 47,000, with a piped water supply in 1847

LIFE EXPECTANCY IN ENGLAND IN 1841:



PRODUCTIVITY

2,000

The number of steam engines thought to have been at work in Britain by 1800

128

The spinning jenny, invented by James Hargreaves, could spin 128 threads at a time

260,000

The number of mechanised power looms in operation in England by 1850

62.5 million

By 1850, Britain was producing 62.5 million tonnes of coal per year – more than 10 times the amount being produced in 1750

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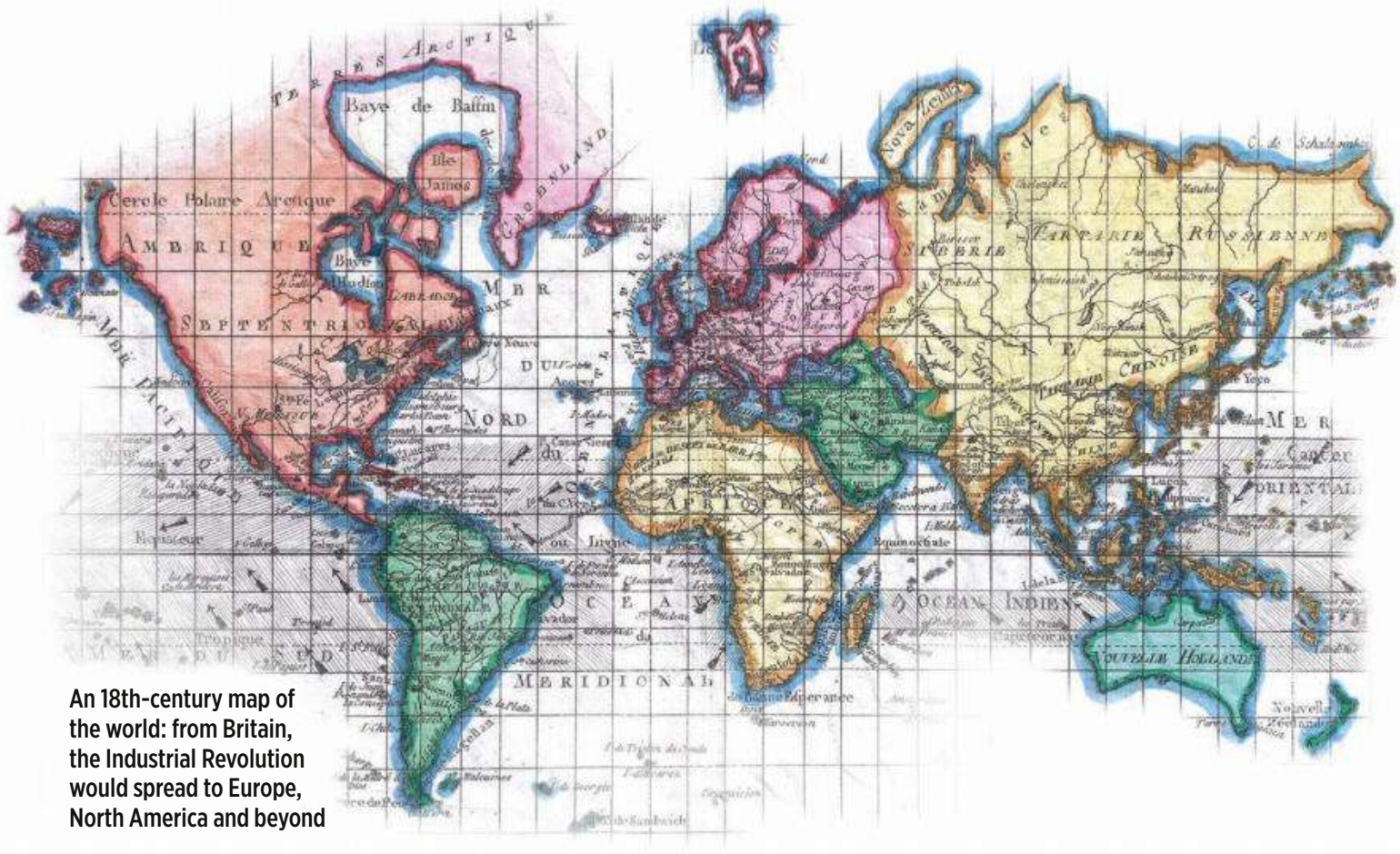
HOW THE REVOLUTION SPREAD FROM BRITAIN

Professor Emma Griffin reveals how British innovations would ultimately pave the way for global industrialisation

The Industrial Revolution may have begun in Britain, but before long, other countries were taking notice and exploring whether they could introduce new, mechanised techniques of their own. While some followed the same pattern as Britain, the ease with which other nations could import British technology varied considerably depending on the structure of their existing industries, their available natural resources and the technical skills of their workforce.

By the end of the 19th century, alternative pathways to industrial status were emerging, although some countries stuck to their traditional manufacturing. For these, industrialisation would not begin until late in the 20th century.



An 18th-century map of the world: from Britain, the Industrial Revolution would spread to Europe, North America and beyond

BELGIUM

Early 19th-century Belgium was a small nation by any measure, composed of nine provinces and gaining independence from the Netherlands only in 1830. Yet by then, Belgium had already taken its first decisive steps towards industrialisation, ahead of much of the continent. The economy grew rapidly in the first half of the century and – though growth was still slower than Britain – it was comfortably higher than any other European nation.

The challenge for Belgium was not the same as it had been for Britain. There was no need to invent technologies from scratch. For Belgian manufacturers, the task was to try to get hold of British machinery and install it in their own works. This was harder than it sounds as there were British laws in place prohibiting the export of machinery, yet it was ultimately something that Belgian manufacturers did to great effect.

The fact that natural resources available in Belgium were similar to those in Britain helped to lessen the technical challenges of importing machinery, and enabled Belgium to develop thriving textile and iron industries based on coal and steam power. By the 1840s, the French political economist, Natalis Briavoinne, was able to write about "*la révolution industrielle*" that was occurring in Belgium. By the mid-century, it was increasingly clear that this small northern European country was diverging from its neighbours: industrialisation was well underway.

This stained glass window in Ghent Cathedral shows a woman working at a silk mill, a sign of Belgium's thriving textile industry

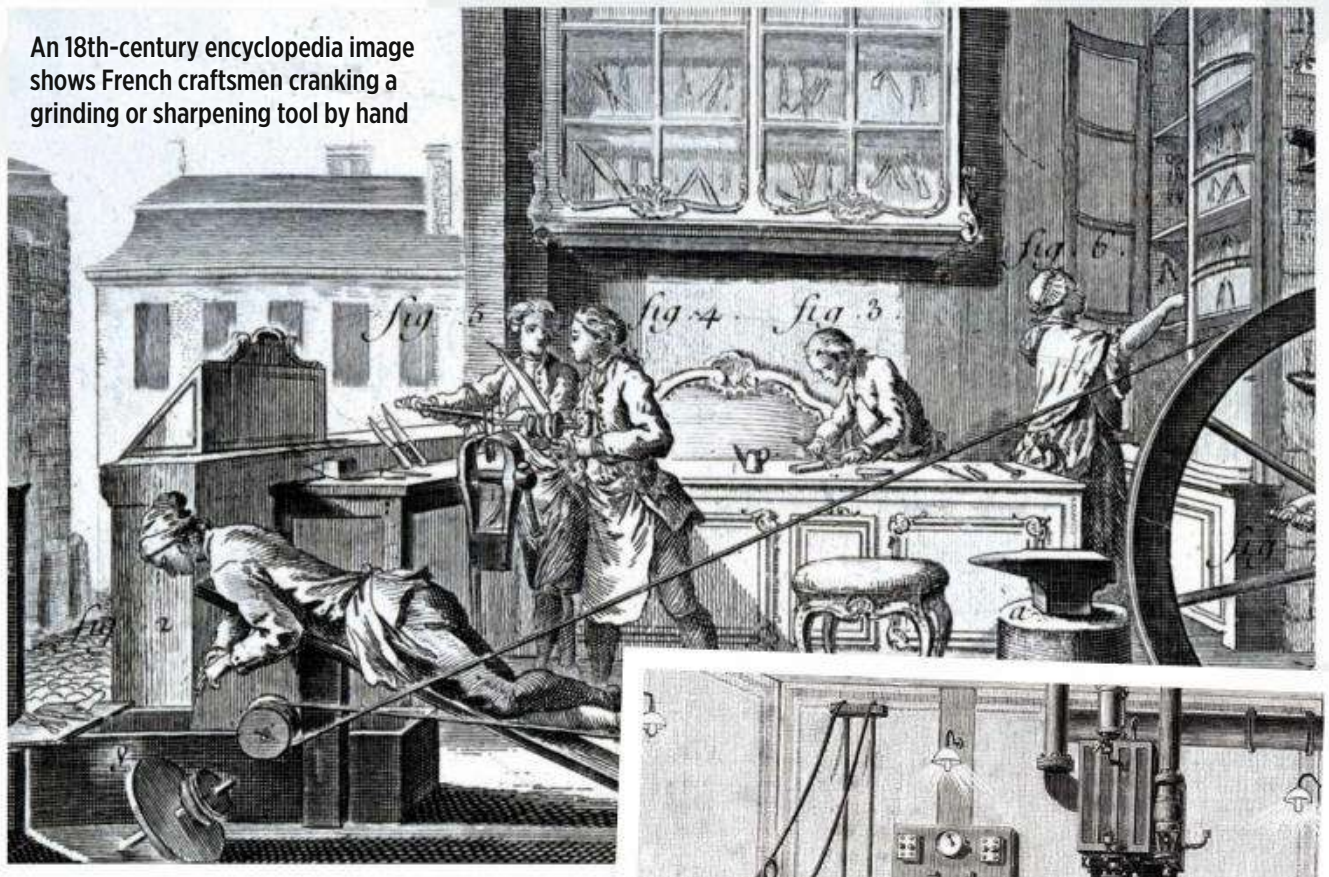
ALAMY X4, GETTY IMAGES X1

FRANCE

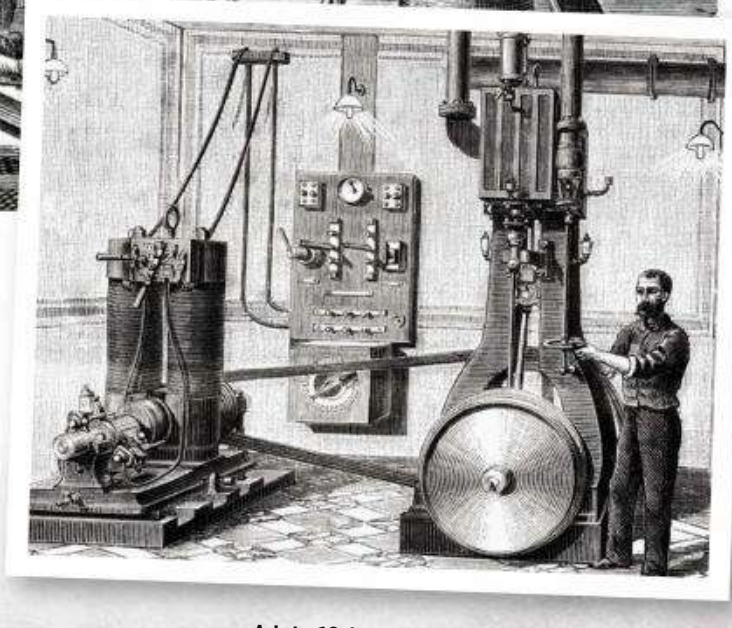
Before factories and mills transformed the fate of Britain, France was Europe's powerhouse. Its landmass and population were greater than Britain's, as was its national wealth, and since the French had cultural and geographical ties with its neighbour across the Channel, they were well placed to import, adopt and imitate the latest in British technology. What's more, France was home to a thriving and sophisticated engineering sector and scientific culture.

Despite these advantages, France struggled to keep pace with the economic progress in Britain. One of the chief issues was that the environment and resource base was quite different from those of Britain, where the new technologies had been invented and established. France lacked coal, which made imitation of Britain's steam-based economy far trickier. Even where manufacturers were able to get hold of British machinery, they often found that it was not economical to run owing to the high cost of coal.

It was not until the late 19th century that France found cost-effective methods to unlock a way towards industrialisation that was adapted to its strengths and needs. This was based on the energy of the rivers, through the development of electricity. As a result, France largely bypassed many of the features of the British Industrial Revolution, with its emphasis on coal, steam and iron. ▶

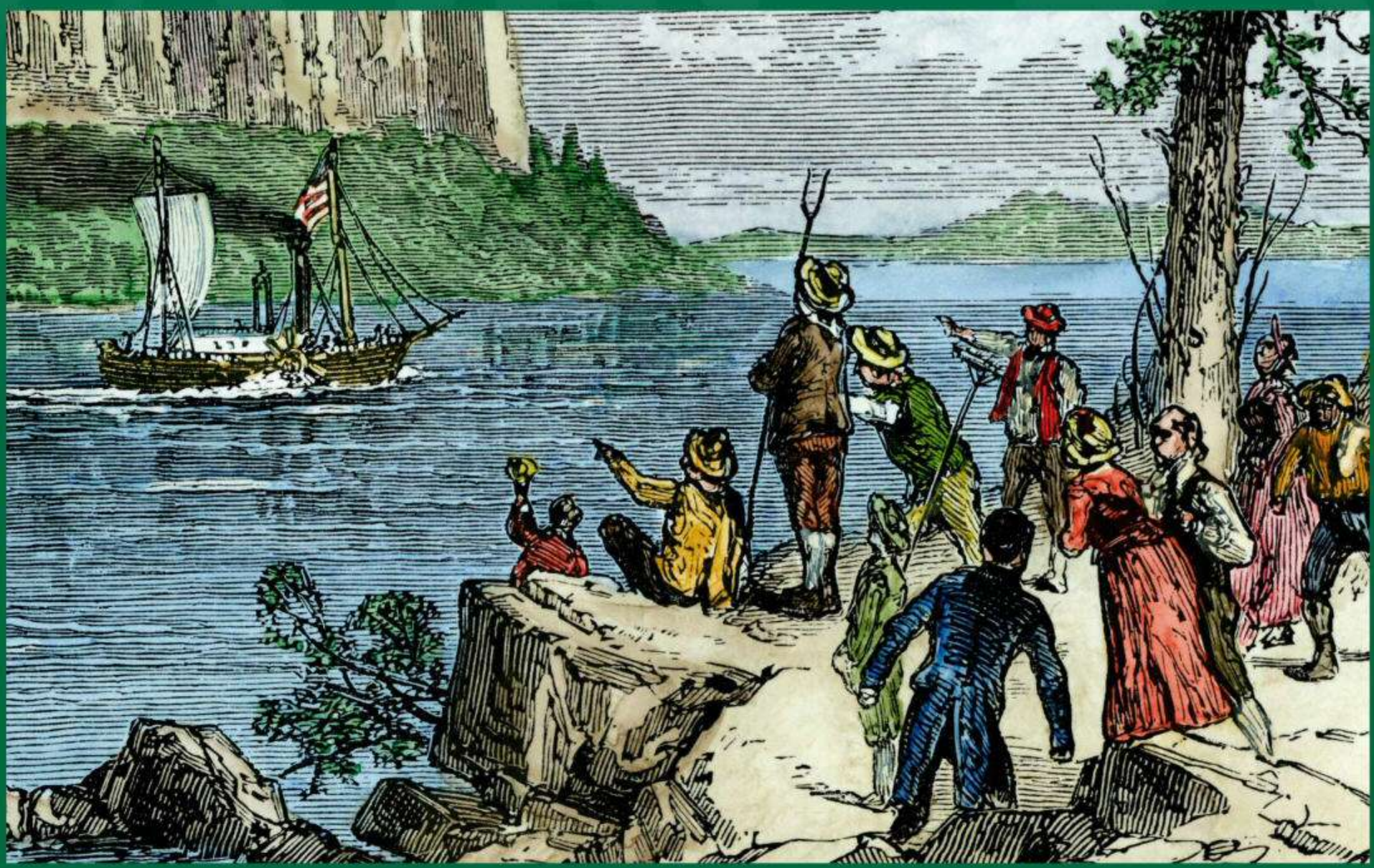


An 18th-century encyclopedia image shows French craftsmen cranking a grinding or sharpening tool by hand



A late 19th-century engraving (*above*) of an electrical generator – one of the ways that French industrialisation advanced without being reliant upon coal. However, there were still iron foundries (*below*)

"FRANCE BYPASSED MANY OF THE FEATURES OF THE BRITISH INDUSTRIAL REVOLUTION, WITH ITS EMPHASIS ON COAL, STEAM AND IRON"



The *Clermont*, seen on its maiden voyage along the Hudson River in 1807, was the first steamboat used for commercial transportation

NORTH AMERICA

The United States is roughly equivalent in size to Europe. Add Canada and you have a landmass more than twice as large. Such a huge territory is always going to be home to a great diversity of landscapes, so it is not surprising that these provided the continent's inhabitants with a strong resource base for industrialisation and ensured that it took a wide variety of forms. In addition, there were close linguistic and cultural ties between Britain and North America to help ease the process of technological transfer.

From the early 19th century, North American manufacturers were beginning to import steam engines and many other elements of British technology, although the availability of resources prompted them to use these tools in different ways. Since wood was so abundant in the US, it was often more economical to power steam engines with wood rather than coal – many American steam locomotives, for example, were initially powered in such a way. By the same token, where abundant and cheap coal was available, the fuel-saving innovations were a low priority for American manufacturers. Elsewhere, the existence of large and powerful rivers prompted manufacturers to stick with water power much longer than was the case in Britain.

Despite this considerable diversity, North America had decisively started down the road to industrialisation by the 1800s. By 1850, the economy had grown significantly, and mechanised production techniques had been introduced across a wide front. Steam engines were common, but the existence of rivers encouraged an early move into electricity production at the end of the century. During the 20th century, the continent's oil reserves would be brought into the mix and pave the way for an economy rooted in the combustion engine as well.

LEFT: A preference for using wood instead of coal inevitably led to the birth of a huge North American timber industry

FAR LEFT: The continent's early steam engines also tended to be wood-burning

ALAMY X3, GETTY IMAGES X3

CHINA

Historians have struggled to explain why a nation that sat near the top of the global league at the beginning of the 19th century had lost its place by the dawn of the next. But the strength and power lay in its large population, rather than its economic achievements. With a huge workforce, China was able to produce more than the much smaller populations of other countries, although standards of living were low, and each individual family had to subsist on little.

The production techniques used in China were often labour intensive rather than technologically sophisticated, and most of the population was not engaged in manufacture at all. Subsistence farming formed the mainstay of the economy in most areas. And unlike certain European countries, such as France, Italy, Portugal and Spain, which were hampered by a scarcity – in some cases a near total lack – of coal, China did possess plentiful reserves.

What the Chinese lacked was the incentive to use these reserves. Extracting coal from the ground can be complex and expensive, and new steam-powered machinery was initially costly, experimental and prone to breakdown. Most Chinese manufacturers lacked the finance, or the inclination, to make the switch to the new machinery and so continued to rely on their traditional methods well into the 20th century. ▶

ABOVE: **A mine in 19th-century China, still using traditional, rather than industrialised, techniques**

BELOW: **China's economy continued to rely on subsistence farming**

"CHINA'S PRODUCTION WAS OFTEN LABOUR INTENSIVE RATHER THAN TECHNOLOGICALLY SOPHISTICATED"

INDIA

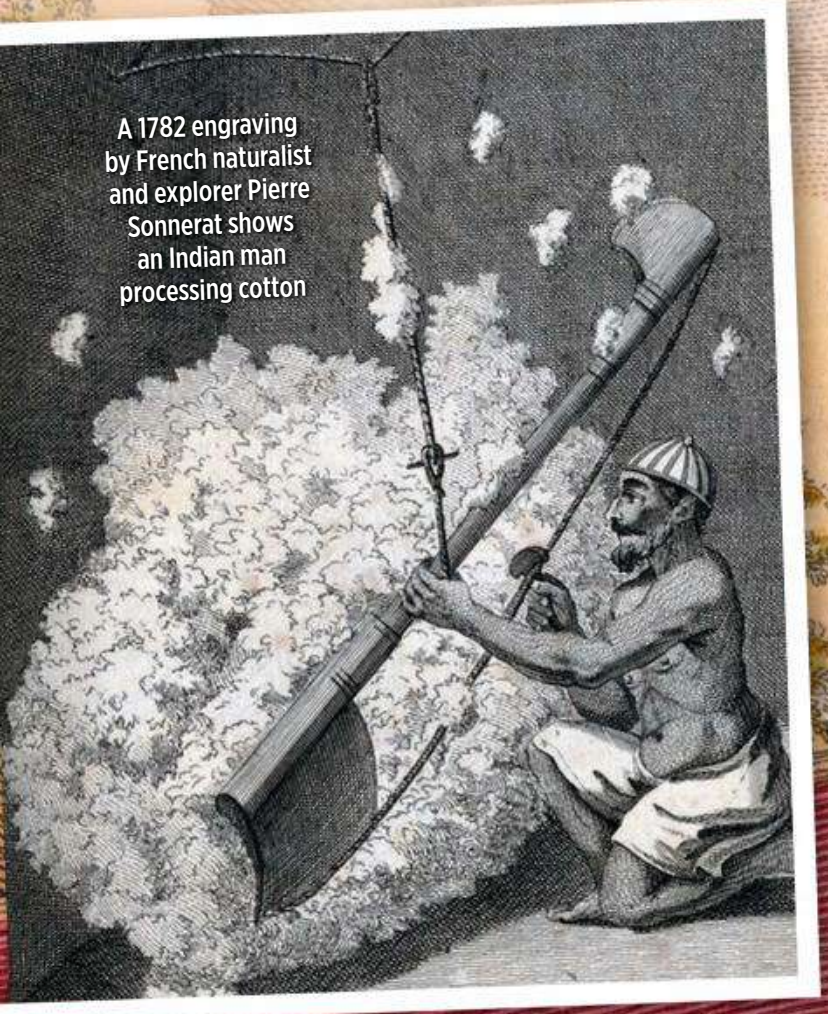
India, much like China, was a large and wealthy country in the 18th century; and, again like China, much of its strength derived from the size of its population rather than a well-established manufacturing base. The textile industry was large, but the majority of the sorting, spinning and weaving was done by hand using traditional techniques. As the cost of labour was low in India, manufacturers had little reason to switch from these techniques and invest in costly new machines, which were unfamiliar to the workforce and liable to breakdown.

Yet, while India did not industrialise much during this period, it was powerfully impacted by events in Britain. Before the Industrial Revolution, India had traded its cotton cloth on the global market. Once Britain had switched over to mechanised production, however, the cost of its cotton cloth fell so dramatically that, by the early 19th century, it was cheaper to export raw cotton to Britain, spin and weave it mechanically and then re-export it back to India, than it was to produce it using traditional techniques in India itself. As a result, cotton manufacturing in India fell further behind Britain, making it ever more difficult for Indian industry to modernise.

The Indian experience is an important reminder of the interconnected nature of industrialisation and of the fact that the Industrial Revolution was not confined to Britain, but had important ramifications across the globe.

EMMA GRIFFIN is a professor of modern British history at the University of East Anglia. She is the author of five books, including *Bread Winner: An Intimate History of the Victorian Economy* (Yale University Press, 2020)

ALAMY X2, GETTY IMAGES X1



A 1782 engraving by French naturalist and explorer Pierre Sonnerat shows an Indian man processing cotton

Another image by Pierre Sonnerat shows cotton being weaved at a loom

"IT WAS CHEAPER TO EXPORT RAW COTTON TO BRITAIN, SPIN AND WEAVE IT MECHANICALLY AND RE-EXPORT IT BACK, THAN PRODUCE IT IN INDIA"

THE SOCIAL IMPACT OF INDUSTRIALISATION

Professor Emma Griffin examines whether the general standard of living for Britain's working classes rose or fell

Ever since the term 'Industrial Revolution' entered our vocabulary around the turn of the 20th century, historians have been debating what that transformative period in the 18th and 19th centuries meant for the ordinary men, women and children whose backbreaking work made it possible.

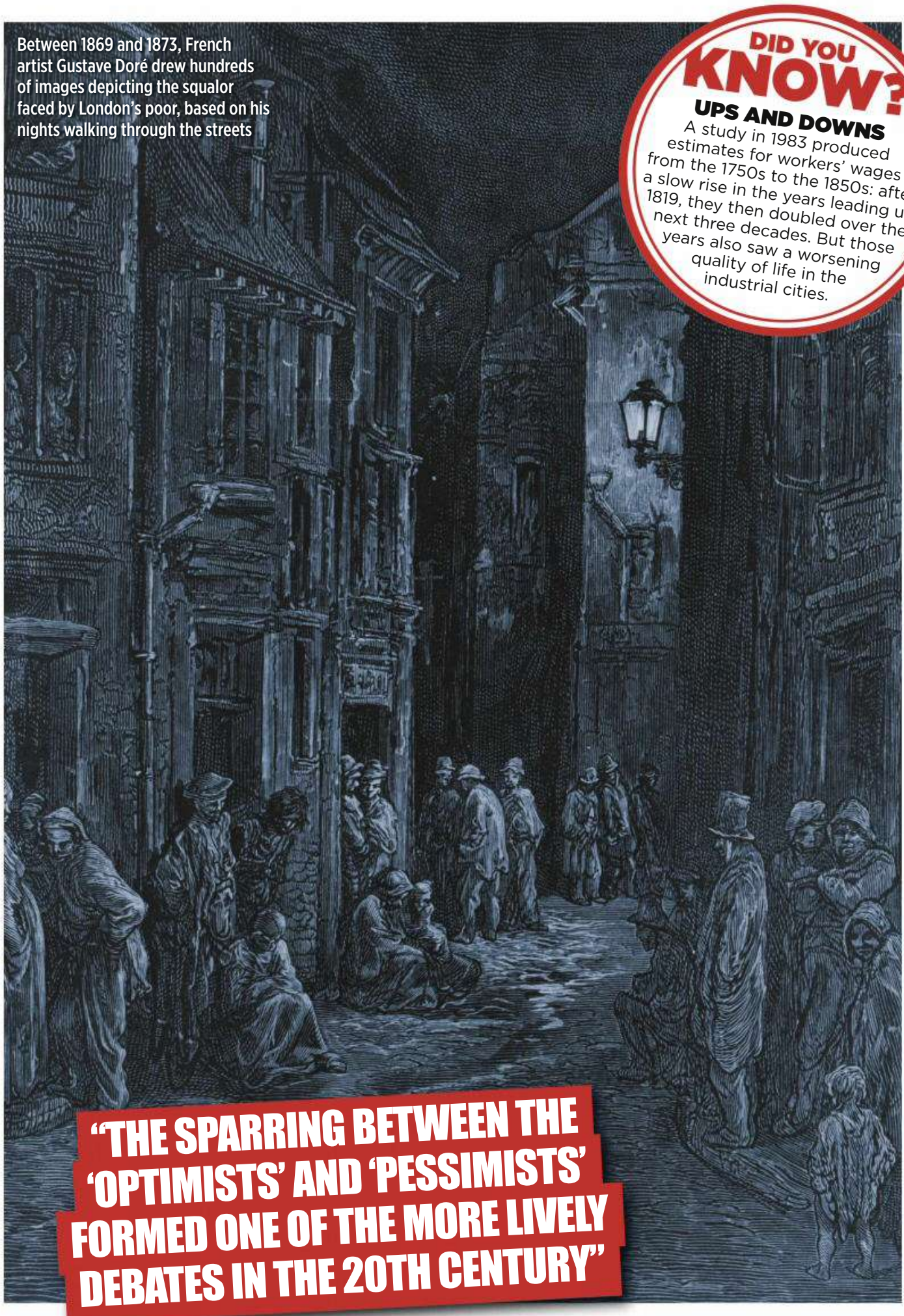
Indeed, the discussion over the social consequences of industrialisation on such an unprecedented scale laying the groundwork for the modern world began before the name even took root. Although 19th century commentators did not use our modern vocabulary, they certainly well understood that they lived in the midst of profound economic change and social upheaval, and poets, novelists, philosophers and a host of others sought to make sense of the dramatic changes to people's lives and the country's landscapes that they were witnessing.

With the passage of time, the Industrial Revolution gradually slipped from lived experience to historical event, and so the task of dissecting its consequences fell into the hands of historians. The sparring between the so called 'optimists' and 'pessimists' formed one of the more lively elements of historical debate throughout the 20th century. On the one hand, the optimists argued that industrialisation improved the lives of working people, pointing to the fact that wages tended to be higher in cities and in factories, which enabled workers and their families to enjoy a higher standard of living.

The pessimists drew attention to the manifold disadvantages experienced by working people during the Industrial Revolution, such as longer hours; more difficult, demanding and repetitive work; and the hardships of urban living. Some even disputed whether wages and living standards improved at all.

BEYOND GOOD AND BAD

Arguably, dividing the social impact of the Industrial Revolution into simply 'good' and 'bad' fostered an overly polarised debate. Rather than attempting to generalise about the impact that



Between 1869 and 1873, French artist Gustave Doré drew hundreds of images depicting the squalor faced by London's poor, based on his nights walking through the streets

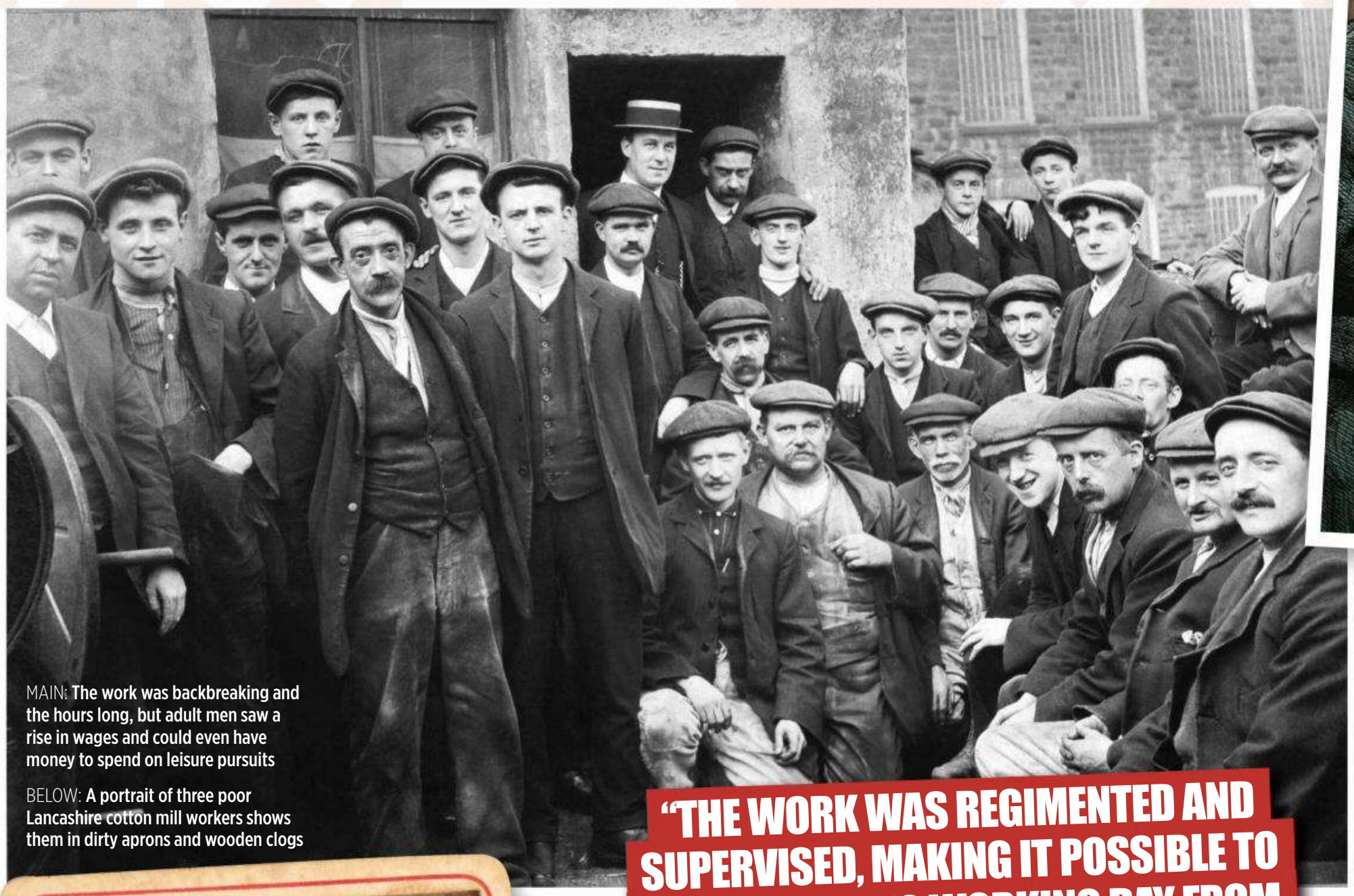
DID YOU KNOW?

UPS AND DOWNS

A study in 1983 produced estimates for workers' wages from the 1750s to the 1850s: after a slow rise in the years leading up 1819, they then doubled over the next three decades. But those years also saw a worsening quality of life in the industrial cities.

"THE SPARRING BETWEEN THE 'OPTIMISTS' AND 'PESSIMISTS' FORMED ONE OF THE MORE LIVELY DEBATES IN THE 20TH CENTURY"

GETTY IMAGES X2



MAIN: **The work was backbreaking and the hours long, but adult men saw a rise in wages and could even have money to spend on leisure pursuits**

BELOW: **A portrait of three poor Lancashire cotton mill workers shows them in dirty aprons and wooden clogs**

“THE WORK WAS REGIMENTED AND SUPERVISED, MAKING IT POSSIBLE TO EXTRACT A LONG WORKING DAY FROM EVEN THE YOUNGEST OF CHILDREN”

industrialisation had on ‘working people’, it is instead helpful to think about individual sections of society, as this period certainly impacted different parts of the population of Britain in very different ways.

We tend to have the strongest historical evidence for the experiences of adult males, so let us start the discussion there. Despite the claims of the pessimists, if there was one group that stood to gain it was adult men. The factories, mills and furnaces needed workers to operate them, and in order to attract and retain such workers, their owners needed to pay higher wages than men could earn working on the land.

Higher wages were the simplest and most obvious benefit, but these led to further opportunities for men. As wages rose, workers started to enjoy some of the things that are taken for granted today, such as the possibility of progression in one’s employment and expendable income, which they used on leisure time or other pursuits.

While the demand for labour generally benefited adult men, we know that the factories also put children to work – so what was the impact on them? Here, the evidence is more mixed. There was, of course, nothing new about employing children: poor families the world over have always put their children to work from a young age. But the reality was that prior to the Industrial Revolution, there was not much work for them to do.

AN UNEVEN PICTURE

The rise of the factories changed the fate of children’s work dramatically. Not only was there a large demand for child workers, the tasks needed in factories and mills were regimented and supervised, making it possible to extract a long working day from even the youngest of children. This marked a clear change with the past. While it is likely that child workers enjoyed better nutrition than they had previously, the physical and emotional demands of the labour they performed on their growing

© RYANMCNAMARA 2012 X1, BBC X1, GETTY IMAGES X2, ALAMY X3

ABOVE: **Many women could not make much money as time went to caring for their families**

TOP: **A government inspector talks to young children about their factory work, which for years had been unregulated**

bodies should not be underestimated.

Finally, the experiences of women in the Industrial Revolution were different yet again. Although young, unmarried women often worked for pay outside the home, the reality was that many spent most of their lives carrying out unpaid domestic work for their families. As such, they did not share, at first hand, many of the advantages enjoyed by the men. Furthermore, industrialisation did nothing to help women control the size of their families.

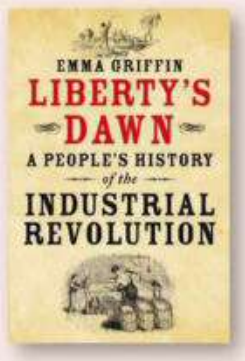
As has been hinted at, there is no one-size-fits-all answer to the ongoing debate of what happened to ordinary people with the onset of industrialisation. Above all, the Industrial Revolution created a far more complex society.

EMMA GRIFFIN is a professor of modern British history at the University of East Anglia. She is the author of five books, including *Bread Winner: An Intimate History of the Victorian Economy* (Yale University Press, 2020)

GET HOOKED

If we've whetted your appetite for the Industrial Revolution, why not explore the topic further with our pick of books, films and podcasts

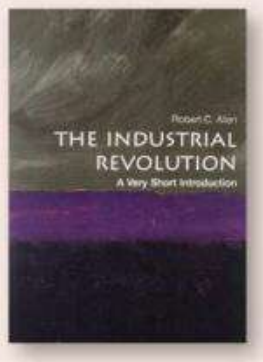
BOOKS



Liberty's Dawn: A People's History of the Industrial Revolution

By Emma Griffin (Yale University Press, 2014)

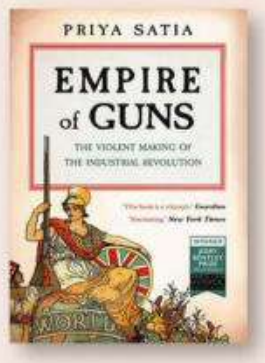
For more on the personal experiences of the workers in the Industrial Revolution, and its aftermath, look no further than this exploration of hundreds of accounts written between 1760 and 1900. With a colourful cast of characters, Griffin highlights how alongside the misery there was also progress.



The Industrial Revolution: A Very Short Introduction

By Robert C Allen (Oxford University Press, 2017)

The Industrial Revolution brought about such monumental changes in every aspect of life that approaching the topic can sometimes feel overwhelming. This addition to the highly popular *Very Short Introduction* series is an accessible and informative starting point.



Empire of Guns: The Violent Making of the Industrial Revolution

By Priya Satia (Penguin, 2018)

Award-winning author Priya Satia's fascinating and ambitious book frames the Industrial Revolution not only in terms of technological innovation, but in Britain's lucrative gun trade. Military demand, argues Satia, drove industrialisation and allowed the British economy – and empire – to flourish.

ONLINE AND AUDIO

BBC RADIO 4

▶ **Northern Inventions** *(BBC Radio 4)*: In his series, *The Matter of the North*, Melvyn Bragg celebrates the north's industrial inventiveness. Listen at *bbc.co.uk/programmes/b07sy32x*

▶ **For podcasts, features, quizzes, interviews and more on the Industrial Revolution, visit our website: *historyextra.com/period/industrial-revolution***

WATCH

The Mill

(streaming on Amazon Prime)

Both series of Channel 4's hit period drama, set in the Industrial Revolution of the 1830s and 1840s, are based on real-life stories taken from the archives of the textile workers at Quarry Bank Mill in Cheshire.

Oliver Twist (2007)

(available on BritBox)

A powerful and thrilling version of the popular Charles Dickens novel, starring Timothy Spall, Tom Hardy and a young William Miller in the titular role – a boy from the workhouse trying to survive in mid-19th century London.

Team Catherine or Team Anne?

Henry VIII's first two queens are often portrayed as opposing rivals: the scorned Catholic on one side and the reformist seductress on the other. But, argues **Kate McCaffrey**, the devotional books owned by both women suggest they may have shared more in common than the histories make out...

Henry VIII's first and second wives, Catherine of Aragon (*left*) and Anne Boleyn (*right*), have often been painted as polar opposites – but their lives also bore important parallels, too

ALAMY X1, HEVER CASTLE & GARDENS X2

An 1870 painting by Marcus Stone imagines Catherine lurking in the doorway as a besotted Henry enjoys Anne's company

Catherine of Aragon and Anne Boleyn are two of 16th century England's most recognisable names: the first two of Henry VIII's six wives. For centuries, they have been pitted against one another, with historical narratives delighting in their famed rivalry and perpetuating their differences. They were adversaries in love, in power and in religion. While they may have shared a husband, they shared little else.

This traditional history, which has often painted Catherine of Aragon as the scorned Catholic wife and Anne Boleyn as the bewitching reformist seductress, has never been a fair portrayal of either queen. It is a reductive tale that succeeds by tapping into the outdated social dynamic of praising one woman only to the direct detriment of another.

There has been a confused rush to declare oneself as either 'Team Catherine' or 'Team Anne', which has only ever increased the division between them. Of course, the two queens had many crucial differences, but a closer look might remind us that they also shared a lot in common.

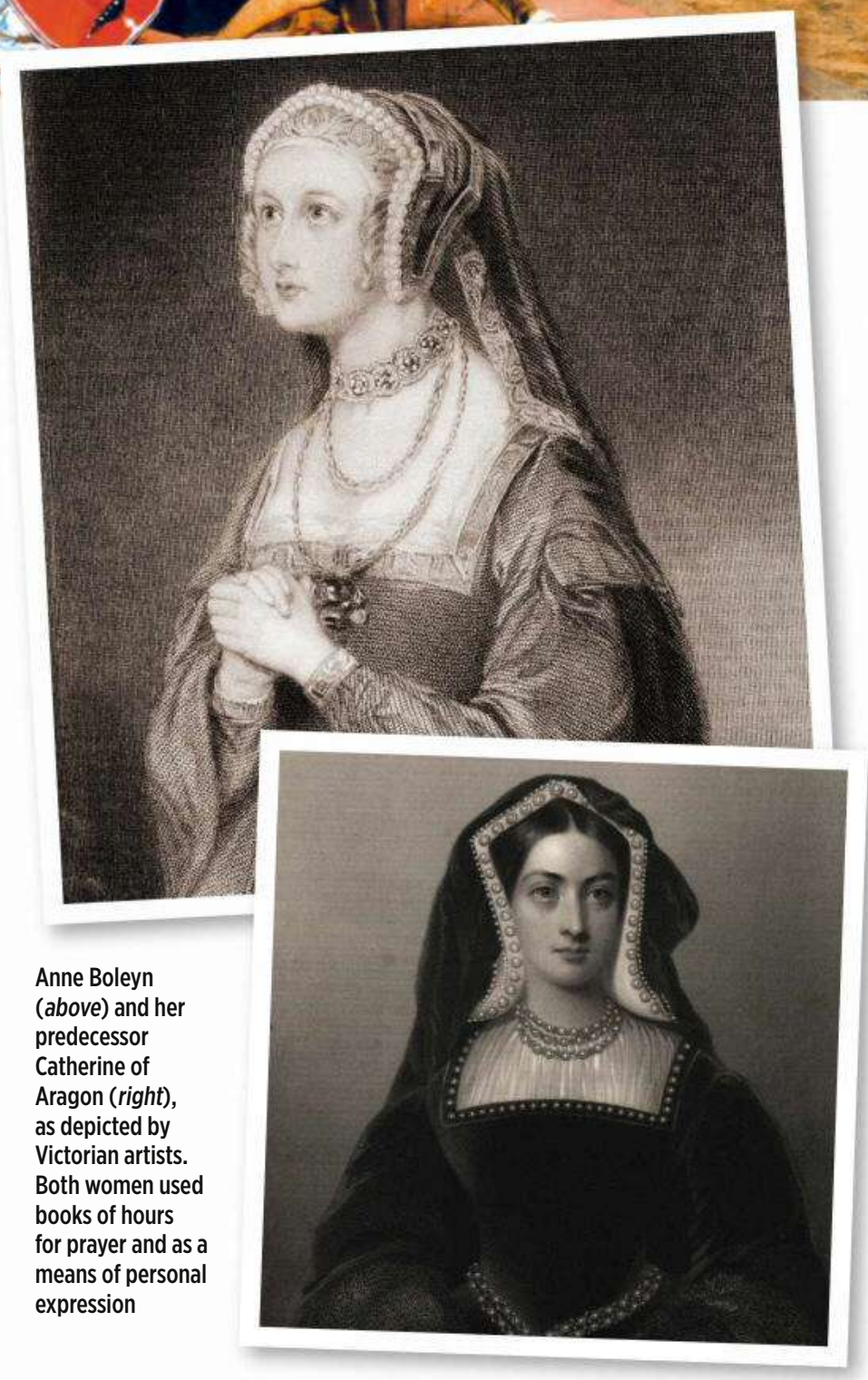
SHARING IN THEIR DEVOTION

A newly uncovered connection between Catherine and Anne might just be the necessary spark for us to remember what united, as well as divided, these two remarkable women. The link in question was found amid recent research I conducted into a humble, printed 'book of hours' once owned, and written in, by Anne.

Books of hours, perhaps most succinctly described as scriptural prayerbooks, are generally acknowledged as the first popular books of the medieval era. Written primarily in Latin, they contained prayer cycles and psalms from the eight canonical hours (hence the name) that governed everyday life.

These beautifully illuminated devotional books were meant to be used frequently in fact, some wealthy people owned more than one copy. The fashion of having a book of hours rose even more after the advent of print and their increased accessibility. Even when printed, they were often highly decorated and customised with the addition of certain prayers and illuminations. It was also common for owners to write on the pages themselves, inscribing them with passages, dates and names of personal significance.

Today, because of this level of personalisation, they offer intimate insights into their individual owners. They are also remembered for their 'special relationship' with women, as an 'appropriate outlet' for female literacy.



Anne Boleyn (*above*) and her predecessor Catherine of Aragon (*right*), as depicted by Victorian artists. Both women used books of hours for prayer and as a means of personal expression

GETTY IMAGES X1, ALAMY X2, HEVER CASTLE & GARDENS X2

"Catherine and Anne both owned and used the same prayerbook, and possibly even at the same time"

It is known that both Catherine and Anne owned at least three books of hours each.

Anne's printed book of hours, the subject of new research, was produced by the prolific Parisian printer Germain Hardouin in 1527 and is currently held at Anne's childhood home, Hever Castle in Kent. One result of this research was the revelation that another copy of the same Hardouin printing is held in the Morgan Library in New York City, and was once owned by none other than Anne's supposed rival, Catherine.

This is an intriguing connection between our two queens. Despite all their differences, Catherine and Anne both owned and used the same prayerbook, and possibly even at the same time.

DIFFERENT, BUT THE SAME

Reflecting their famed differences, the level of decoration across both copies of this book of hours is revealingly varied. Anne's copy is illuminated to a significantly greater standard than Catherine's.

Anne's book has full length, gold borders adorning pages featuring images, extra red and blue corner decoration, and elliptical frames around every section inscribed with prayers. Catherine's copy does not feature this extra decoration.

Of course, this could simply be representative of Anne's personal preference, as it is well known that she enjoyed opulently illuminated books, but it could be an insight into something more suggestive: Anne's personal ambition. In owning a book decorated to a higher standard than even the queen's, she was arguably emulating a royal status that Catherine currently held, and in only seven years' time, Anne would hold instead.

It is significant here to remember the year of this book's production, a crucial point in the changing structure of the Henrician court. By 1527, Henry VIII had decided that his marriage to Catherine was over and must be annulled, and ▶

ABOVE: **Anne's love of opulent decoration is reflected in another manuscript that she once owned, also held at Hever Castle**

TOP: **Anne's copy of the 1527 Hardouin book of hours is elaborately decorated and signed at the bottom of the page by the doomed queen herself**

READING BETWEEN THE LINES

Kate McCaffrey reveals how she uncovered the hidden history of Anne's treasured volume

Anne Boleyn's printed book of hours, produced in 1527, was previously thought to contain just one inscription: her own famous rhyming couplet "Remember me when you do pray, that hope doth lead from day to day". However, during a close study of the book, I uncovered four further inscriptions, each of which had been erased. With the use of an ultraviolet light, photo-editing software and months of examination, I was eventually able to decipher parts of the text.

Although the vigour of the erasures means that full transcriptions remain elusive (at least for now), signed names are visible within each inscription. This has allowed me to reconstruct the path that Anne's book took in the years after her ownership.

The names of those who wrote inside the book after Anne appear to be Elizabeth Shirley, John Gage, Philippa Gage and Mary West. These names are all linked through the extended family tree of the Guildfords, who hailed from Cranbrook in Kent. Elizabeth Shirley and Philippa Gage (both née Guildford) were sisters, while John Gage was Philippa's husband and Mary West was their niece.

Emerging from this interconnected network of names is a story of female community, solidarity and bravery. This was a covert circle, mainly composed of Kentish women, who worked together to protect Anne's signed note within the book and cherish her memory amid the attempts to dishonour her after her downfall. Not only did these later users preserve Anne's place within the book's history, but they were also encouraged by her example to add their own notes, transforming it into an encouraging space for female expression.

But how did the signatories come to be in possession of the book in the first place? It appears that Anne passed her book to a woman named Elizabeth Hill, who was born and raised in Sundridge, only seven miles from Anne's childhood home of Hever Castle. Hill, whose husband was the sergeant of the king's cellar at court during Anne's queenship, was the daughter of Elizabeth Shirley – one of the aforementioned signatories.

Another particularly poignant connection comes from Hill's daughter Mary, who became and remained a close friend of Anne's daughter, Elizabeth I. It is an attractive possibility that more than 20 years after Anne's execution, Mary Hill was able to share the book with the reigning queen, enabling her to view her late mother's note.

ABOVE: **Ultraviolet light has helped reveal previously unknown inscriptions within Anne Boleyn's 1527 book of hours, penned by subsequent owners**

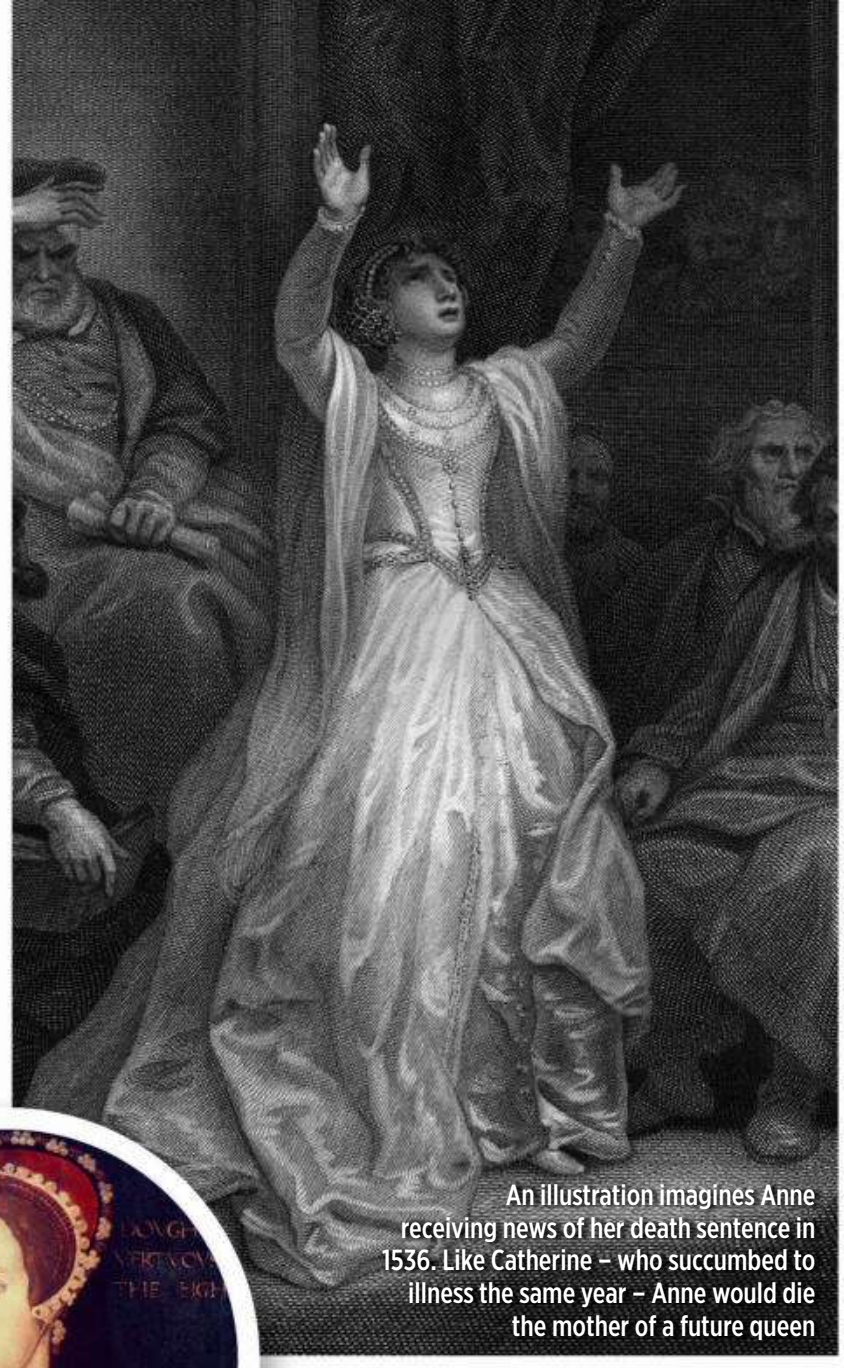
ABOVE LEFT: **A close-up view of Anne's very own short message**

TOP LEFT: **Kate McCaffrey made the discoveries while writing the thesis for her master's degree**

The book is currently on display at Hever Castle – Anne's childhood home near Edenbridge, Kent

GETTY IMAGES X3, ALAMY X1, HEVER CASTLE & GARDENS X3

A painting shows Catherine speaking with Henry VIII's lord chancellor, Cardinal Thomas Wolsey, who famously failed to negotiate the annulment of the couple's marriage



An illustration imagines Anne receiving news of her death sentence in 1536. Like Catherine – who succumbed to illness the same year – Anne would die the mother of a future queen

Elizabeth I (*above*) and Mary I (*top*), both painted in their youth. The two queens – the daughters of Anne Boleyn and Catherine of Aragon respectively – would leave greater legacies than their half brother, Edward VI

> "Anne's star was on the meteoric rise and Catherine's was on the catastrophic wane"

by the end of the year, Anne had accepted his marriage proposal. The balance of power had truly shifted.

The ownership of the same book by our two queens comes at a time when Anne's star was on the meteoric rise, and Catherine's was on the catastrophic wane. This was a time of extreme personal strife and turmoil in both of their lives. Here they were, arguably at their most divided, yet united by a small book used in the most peaceful of moments: prayer.

QUEENS AND MOTHERS

Owning the same book of hours was certainly not the only unifying factor between Henry's first two wives. Catherine and Anne shared many characteristics in common.

Both queens were highly intelligent, involved and pious women who enjoyed international, humanist educations: Catherine at the cultured court of Spain and Anne at the prestigious courts of Margaret of Austria and later Claude of France.

They were both at the mercy of their mercurial husband and the 16th century patriarchy; both had to endure Henry's wandering eye and ferocious wrath; and both suffered cataclysmic downfalls

Catherine's gradual and prolonged, Anne's sudden and sweeping. Both also failed in their one queenly duty to provide Henry with a surviving son.

Yet both Catherine and Anne were loving, protective mothers to England's first two queens regnant, Mary I and Elizabeth I. This, perhaps, is their ultimate point of unity. They were mothers of two unwanted daughters, whose legacies ironically outshine that of Henry's longed-for male heir by Jane Seymour, who would reign as Edward VI between 1547 and 1553.

Undoubtedly, in certain aspects of their lives, these two women were rivals. But they were both uncompromising, active and influential women in a world made for, and by, men. This alone is a unifying feat worth celebrating.

Catherine and Anne's shared book of hours can perhaps epitomise the relationship between them. Their books were copies of the same printing, but differently decorated and differently used. It is possible to understand the nuance of their disparities without pitting them against one another and without forgetting some of their important similarities.

If teams must be chosen, then surely now it is possible to proudly choose 'Team Catherine and Anne'.

KATE MCCAFFREY is assistant curator at Hever Castle, Kent. Her research into two of Anne Boleyn's books of hours is revealing new insights into the life of Henry VIII's second queen. Find out more at *kateemccaffrey.wordpress.com*

GET HOOKED

VISIT

Kate McCaffrey will be co-curating a new series of exhibitions at Hever Castle over the coming years, each focusing on Anne Boleyn's life and times. The first display opens on 4 March, exactly 500 years after Anne made her debut at the English court. Find out more at *hevercastle.co.uk*

WHAT GREAT PAINTINGS SAY

Hidden within a display of wealth and grandeur are signs of discord and disruption

The Ambassadors

by Hans Holbein the Younger, 1533

It is 1533 and England is in turmoil: Pope Clement has refused to annul Henry VIII's marriage to Catherine of Aragon and the English king is furious. Ignoring papal threats of excommunication, Henry marries the already pregnant Anne Boleyn and breaks with the Catholic Church in Rome. The English Reformation has begun in earnest.

It is against this backdrop of religious upheaval and uncertainty that Hans Holbein the Younger, a German artist employed at the English court, created one of his most impressive works. Painted during his second trip to England, it depicts Jean de Dinteville (*far left*), courtier and ambassador to the French king Francis I, and his close friend, Georges de Selve, bishop of Lavaur. Between them are a range of objects that at first glance, might seem to have been strategically placed to reflect the interests, religiosity or intellect of the sitters, as was common in Renaissance portraiture.

"*The Ambassadors* is a painting whose vibrancy and imposing life-size figures immediately piques the viewer's interest," says Emma Capron, associate curator of Renaissance painting at the National Gallery, London. "But it is also a work that merits closer examination, to unpack the messages that Holbein and his sitters are trying to convey."

Between the two men, scattered across an expensive Anatolian carpet, are an array of technical instruments associated with the measurement of time, altitude and the position of the stars and other celestial bodies; on the shelf beneath them sit objects relating to music and mathematics.

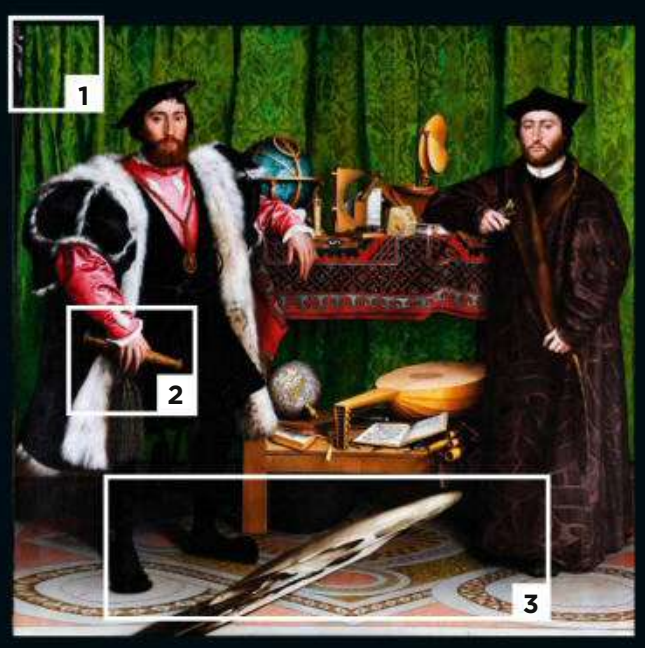
"What is particularly interesting about these objects is their imperfections," comments Capron. "The timekeeping devices are all slightly miscalibrated, perhaps a reflection of the turbulent times in which they are living. The lute's broken string and a missing pipe in the case of flutes could be symbolic of wider disharmony and discord; even the arithmetic book, propped open with a set square, has been opened to a page illustrating division. The piece is littered with discreet signs that something is amiss with the world.

"England's break with Rome was a moment of huge instability. Today, we know that England never returned to the Catholic fold, but at the time, there was real uncertainty as to whether the country would reconcile with Rome. As well as a display of material wealth and abundance, this work may well have served as a prompt for the big conversations of the day; a reflection of the uncertainty and instability rippling across Europe." ⊙

WORDS: CHARLOTTE HODGMAN

GET HOOKED

The Ambassadors hangs in Room 12 at the National Gallery in London. Visit the website for more information on the painting, and how to visit: *nationalgallery.org.uk*



1. CRUCIFIX

Partially obscured by the sumptuous green curtain is a small crucifix – perhaps a hint at the need for Christian unity and salvation through Christ.

2. DAGGER SHEATH

Jean de Dinteville's elaborate dagger sheath, with its impressive gold tassle, is inscribed with the number 29, indicating that he is in his 29th year.

3. SKULL

The huge elongated skull, which can only be seen properly if viewed from the bottom right corner of the painting – a popular Renaissance optical illusion known as anamorphosis – was designed as a *memento mori*, a reminder of the frailty of life and the ever-present spectre of death.

ALAMY

Complements the recent BBC Radio 4 programme *The Army Girls*

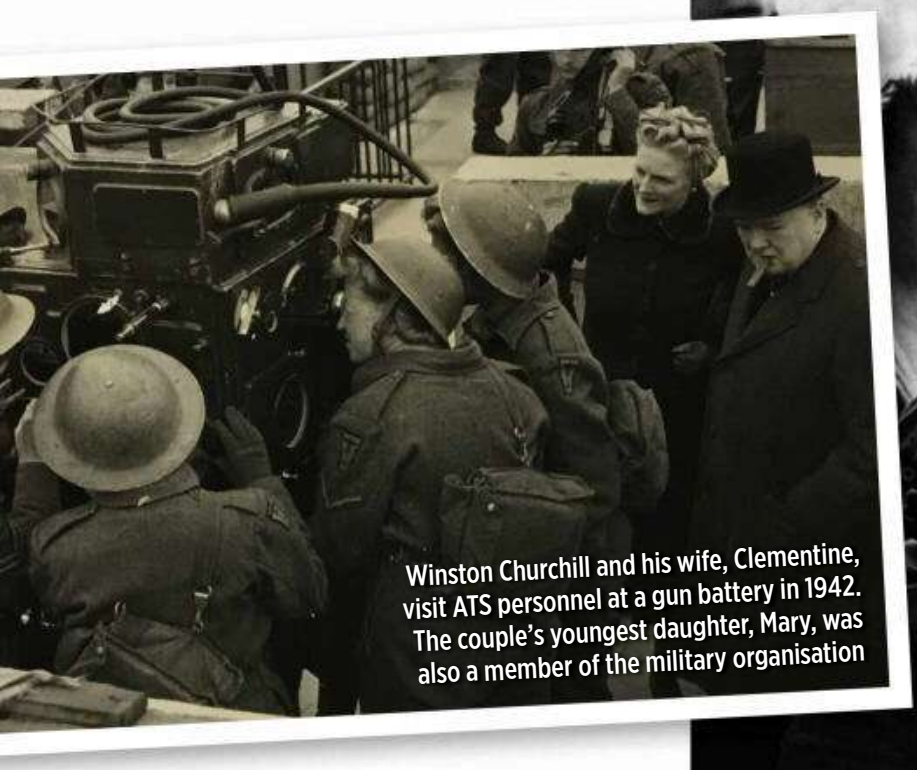
MAIN: **Women from the ATS take a break while helping to man an anti-aircraft gun, October 1941. Although they were not allowed to fire the guns themselves, ATS personnel played a vital role in spotting targets and determining how to strike them**

INSET: **An ATS 'spotter' uses a pair of binoculars to scan the skies for enemy aircraft – information she can then quickly relay to her gunner colleagues**

GIRL POWER

During World War II, thousands of women joined the Auxiliary Territorial Service and proudly assisted Britain's army on home soil. But, as **Dr Tessa Dunlop** discovered during interviews with a selection of ATS veterans, some personnel also had the chance to travel overseas – and embark on the adventure of a lifetime

GETTY IMAGES X2



Winston Churchill and his wife, Clementine, visit ATS personnel at a gun battery in 1942. The couple's youngest daughter, Mary, was also a member of the military organisation

New recruits join the ATS around 1939. The size of the organisation would swell in December 1941, when conscription was introduced for unmarried women and childless widows aged between 20–30

In late 1944, the prime minister's youngest daughter, Mary Churchill, gushed: "Finally... we have been chosen for service in North West Europe. Wild excitement and enthusiasm."

The poster girl for Britain's largest military organisation for women, the Auxiliary Territorial Service (ATS), was front and centre of a concerted effort to encourage additional girls to sign up for overseas selection. More women were needed to support the 2 million men who were pushing across the continent towards Germany, including administrative staff and anti aircraft defence.

ATS recruits, who had been operational on Britain's gun sites since 1941 and provided vital support in numerous other roles, were ideally placed to fulfil this mission. But if "wild excitement" was the overwhelming response of young women, elsewhere there was disquiet at the prospect of sending girls abroad.

Anne Carter (née Garrad) was a 19 year old ATS clerk. During the build up to D Day she had been typing up top secret reports on military manoeuvres, but once the Allies had landed in June 1944, priorities changed. ATS girls were now invited to apply for overseas service, and along with several colleagues, Anne put her name down. Few, however, made the final cut. "Their parents stopped them," recalls Anne. "They wanted their daughters to be at home. Safety was the main reason."

But Anne, whose own mother had been the very first ATS recruit in 1938 (*see box, right*), was an exception. She was given parental consent "without delay or hesitation".

PARENTAL GUIDANCE

Winston Churchill anticipated a backlash. In a private letter, he acknowledged the gulf between the girls whose response to the prospect of overseas postings was "not 'alf!", and the troubles many of them had convincing their "Papas and Mamas".

Despite unprecedented female service in Britain since the (reluctant) introduction of conscription for women in December 1941, mindsets hadn't changed. The presence of uniformed women right across Britain did little to reassure the public about girls' safety overseas.

The War Office was in a bind: until the end of 1944, female recruits needed a written letter of permission from their parents or a husband to serve overseas, and these were rarely forthcoming. Another former ATS girl, Daphne Attridge (née Williams), whose days as a searchlight teleplotter were numbered, shakes her head:

"The battery I was with split up. I became a teleprinter operator for the 21st Army group Monty's [General Bernard Montgomery's] group. They were eventually sent to Egypt, but mother wouldn't let me go. Absolutely not. I stayed in Didcot working on inventories. I never went abroad not until much later, after the war."

In contrast, Anne was one of 200 ATS clerks selected to travel to southern Italy on the SS *Queen of Bermuda* in June 1944, a vessel where men vastly outnumbered women. Once on board, parental consent and clerical skills were not the only criteria required.

"We had to go through a sort of health check, which included finding out about our views on relationships with men," explains Anne. "They didn't want to send out girls who were going to find men and male advances very difficult to cope with." Indeed, recruits were warned that "working with the military abroad, the female sex would be very much in the minority".

ABOVE LEFT: **British propaganda posters encouraged women to enlist in the nascent service, which had only been founded in 1938**

BELOW: **ATS member Anne Carter (*circled*) pictured in Egypt while undergoing officer training at the end of the war. She was also sent to Palestine as part of the same course**

GETTY IMAGES X2, NATIONAL ARMY MUSEUM X1, ALAMY X1,

MAIN: **ATS member Elizabeth Amery helps plot the positions of enemy ships and planes at the Coastal Defence Artillery Headquarters in Dover, December 1942**

BELOW: **Social mixing between male soldiers and ATS personnel was met with alarm by some sections of society**

"THE PRESENCE OF UNIFORMED WOMEN RIGHT ACROSS BRITAIN DID LITTLE TO REASSURE THE PUBLIC ABOUT GIRLS' SAFETY OVERSEAS"

The ATS was a strictly non combatant service, and Anne's arrival in Italy resulted in the removal of "existing male personnel who were duly dispatched to the front to fight". During her downtime, Anne managed to visit the same Lovat Scouts she had travelled out with, who were posted north into the mountains. Her trip to their military hospital was deeply shocking. "We found so many of them in pain, some with missing limbs, blinded or unable to hear," remembers Anne. "I was absolutely horrified by what I saw."

Just a few weeks earlier, these soldiers her friends had been healthy young men, and now they were torn up and punctured like rag dolls. It was only then, Anne concedes, in the relentless Italian heat, that she fully understood the meaning of war.

A MORAL QUESTION

Women were servicing a conflict that predominantly belonged to the opposite sex. The girls' presence was essential, and therefore tolerated – but there were complications.

"All over the place there were far more men than women," explains Anne. "The men were pretty desperate for female friendship quite apart from wanting sex." Many of the soldiers in Italy had been fighting in North Africa; they hadn't been home for months, sometimes even years. It was up to Anne to "morally" assert herself against male advances.

"After a dance or so forth, you'd be taken home in a lorry and it was specially arranged so the girls had to sit on the men's laps; there'd deliberately not be enough room and men would love to explore your body, so you had to be very definite. I'd said, 'I'm not having that', to which the response was often a wheedling 'Please, I haven't seen a woman for ages. Please.'"

Anne's recollections resonate with high level exchanges back in Britain. In 1944, the secretary of state had tried to argue that "it is desirable to have as many British women as possible overseas", as the policy of non fraternisation between soldiers and civilians ▶

DETERMINED TO DO THEIR BIT

A closer look at the lives and careers of two remarkable women...

ANNE CARTER

▶ Anne Carter (née Garrad) was destined for the ATS. In 1938 her mother, Marjory, became W/1 – the first woman to sign up to the new service. In 1943, as soon as she turned 18, Anne volunteered for the ATS, with the press making much of W/1's daughter following in her mother's footsteps. After an early promotion to lance corporal, she spent time training ATS conscripts, before a clerical posting in Inverness. In 1944, Anne then went to Italy for overseas service, and was selected for an officer training course in Palestine. After the war, she briefly ran transit centres in Italy and Austria, before coming back to England in 1946, where she gained a degree, became a probation officer, and started a family with her husband. Anne died in July 2021, aged 97.

JOAN AWBERY

▼ Joan Awbery (née Stittle) longed to sign up and serve early on in the war, but her parents – who had lost siblings during WWI – weren't so keen. It wasn't until late 1941, with conscription for women pending, that she got her way. A shorthand typist, Joan spent the majority of the war working for the Army Kinema Service in England, followed by selection for overseas service in March 1945. As a corporal, she worked in the legal aid department in the British Liberation Army in Belgium and the British Army of the Rhine in Germany until June 1946. After coming home, Joan became a secretary in a jam factory and settled down with a husband and children. She is now aged 101 and still an active member of the Women's Royal Army Corps Association.

“OVER 5 MILLION GERMANS HAD DIED IN THE CONFLICT AND THE STENCH OF ROTTING MATTER HUNG IN THE AIR”

ABOVE: **Some ATS personnel, like Joan Awbery, were able to see the bomb damage that the Allies had inflicted on German cities up close**

TOP LEFT: **New ATS recruits in Aldershot undergo a ‘gas drill’ as part of their general training. Only after D-Day in June 1944 did the British government contemplate sending women overseas**

GETTY IMAGES X3, ALAMY X1

planned for German occupation was only going to be possible with the presence of “British and Allied women”. However, these projections were offset by fears that unsupervised girls would act “immorally”. The debate was unequivocally focused on female behaviour in an era when men were expected to dodge advancing bullets and women advancing men.

Given the moral hoo ha back in Britain, it is perhaps unsurprising that by December 1944, just one in 30 girls had received parental permission to serve abroad. Initially, a team of 4,000 ATS volunteers were sent into liberated northwest Europe, Mary Churchill included. But it wasn’t enough. Demands for additional girl power were not welcomed by the exhausted British public, and in early 1945, the government once more resorted to conscription. Indignant parents lambasted MPs; in the words of one politician, they “did not visualise their daughters being compulsorily sent overseas”.

“Perhaps not,” chuckles another former ATS girl, Joan Awbery (née Stittle). “But, by that time, I was 25 and could do what I liked!’

Born and brought up in the small town of Soham, Joan couldn’t wait to spread her wings. She had been stationed for most of the war in nearby Cambridge working for the Army Kinema Service and, an accomplished clerk already promoted to corporal, was ideal material for the British Liberation Army. But like so many others, Joan’s parents weren’t keen on the prospect of their only daughter going abroad.

Fortuitously, the law was on her side: in February 1945, women were drafted into service overseas, excluding those who were married or aged 19 and under.

BRUSSELS TO BIELEFELD

In March 1945, after “parading and marching with full equipment”, “a sleepless night rocking about on the North Sea” and an “unspeakably awful train journey through war ravaged countryside”, Joan finally arrived in Prinz Albert Barracks, Brussels. Her wish to experience a different sort of war had come true, and proof of its impact lie in the 70 letters she wrote home over the subsequent 18 months.

In a small country where around 375,000 Belgians were taken to Germany as prisoners and conscripted labourers, the end of the occupation and the Allies’ arrival brought untold joy. According to one of Joan’s letters, there was *“a parade of returned Belgian army prisoners complete with band… one day, a short parade of about three bands went along past the office and quite an hour before it was due, the streets were so thick with people that the police had to clear the way for trams to pass.”*

Joan marvelled at Belgian emotion, but it was not her victory. War in Britain, a country never occupied or morally compromised in the same way, meant something very different. She admitted to her parents: *“When all these things happen, and everybody is wagging flags and bursting into tears and getting thoroughly het up, all the men in the office and Mary and I get all the more stolid and just look on with a solemn face, which must be annoying!”*

Joan was British; she waited eagerly for the continental edition of the *Daily Mail*, and even today – a wise, gentle woman of 101 – she is unrepentant about the Germans. “We hated them,” she hisses, “in their awful grey uniforms.” The truckloads of German prisoners, many of whom would not see their homeland for several more years, elicited no sympathy. Joan noted: *“The reaction from the [local] population was frightening.”*

Her next posting was occupied Germany. Having spent years as an ATS

When recalling their wartime experiences with Dr Tessa Dunlop, both Joan Awbery (*above*) and Anne Carter (*top*) expressed their immense pride at having served in the ATS. Sadly, Anne passed away in July 2021

clerk in southeast England, she was now catapulted into what war looked like for the losers. Over 5 million Germans had died in the conflict, 400,000 of them as the result of Allied bombing, and the stench of rotting matter hung in the air:

"The whole place looks like a rubbish dump and the smell is something fearful. I expect if the truth were known, there are still some remains underneath all the rubble… there can't be a single undamaged building in Bielefeld."

The maelstrom of humanity in the immediate aftermath of Germany's devastating war saw radical measures introduced to prevent anarchy and violence. Initially, Joan could not leave the British compound and go to the other side of the barbed wire unless she was in a party of six ATS girls, each accompanied by an armed guard.

Nowhere and no one was deemed safe, and yet Joan and her ATS colleagues were not allowed to carry guns. As restrictions were gradually lifted, she noted: *"It's strange the men have to be armed to go out, but the ATS are allowed out in pairs with no arms and no escorts."* Thankfully, Joan had no need to defend herself in an environment where dealing with Allied soldiers was her primary concern: *"Apparently the ratio of girls to men out here is one to a couple of thousand. I'm sick of parties and men. Especially the latter. I begin to wish I wasn't so pleasant to them."*

Now in ripe old age, she laughs heartily. "They were an absolute pest. I should have been much firmer if it were today!"

ABOVE: **A line of SS troopers after being captured by the Allies in the Ardennes. Joan Awbery, who served in Belgium in 1945, says the reaction of locals to German prisoners was "frightening"**

TOP: **Two ATS women use a height finder and a pair of binoculars to scout for enemy aircraft in May 1941**

HOME DISCOMFORTS

Like Anne, Joan was a pioneer; they were two of several thousand British women who served in Europe at the end of World War II during an era when traditional ideas of femininity and masculinity complicated the inclusion of girls into a military support role for Britain's army. Despite the contradictory rules, double standards and naysayers, both women emerged from the war proud soldiers. They enjoyed the discipline, camaraderie and routine, and for Joan, even relations with the local Germans gradually improved.

Given the level of public concern, it is ironic that in both cases, the hardest aspect of service life was returning home. Even today, 75 years later, the disappointment is palpable. Joan missed the ATS; it had briefly blown her out of a small corner of England into a much bigger world where she had excelled, before she was dropped back into a Britain that prioritised the return of war's conventional heroes – men.

Anne concurs: "There was an intensity that was missing. Britain was very different after the war, and it wasn't easy emotionally." But of one thing, Anne is certain. "I was very, very proud of having been in the ATS. It was one of the proudest moments in my life."

DR TESSA DUNLOP is a writer, historian and broadcaster. Her latest book is ***Army Girls: The Secrets and Stories of Military Service from the Final Few Women Who Fought in World War II*** **(Headline, 2021)**

GET HOOKED

LISTEN

A BBC Radio 4 documentary presented by Dr Tessa Dunlop, *The Army Girls*, is available via BBC Sounds: *bbc.co.uk/sounds/play/m0012fk3*

Tessa will also discuss her new book and the women of the ATS on a future episode of the *HistoryExtra* podcast: *historyextra.com/podcast*

WHAT IF...

THE FRENCH REVOLUTION HAD ENDED IN FAILURE?

Professor Marisa Linton talks to **Jonny Wilkes** about how our conception of politics, and our understanding of movements such as nationalism and liberalism, would be under threat without the revolutionaries and the rise of Napoleon

"The French Revolution was not inevitable. It is really difficult to make a successful revolution. One does not come about because people are discontented, suffering, poor, hungry and desperate. Sadly, there are always people in that situation, and because they have no power they can't cause a revolution. It requires numerous contingent factors to cause such epochal unrest as seen in the late 18th century," says Marisa Linton, professor emerita in history at Kingston University London. "Once a revolution has broken out, the poor and suffering can get involved as they did in France."

Economic, political and social factors all built towards France erupting into revolution in 1789. The country was in severe debt following the American Revolutionary War, and the agricultural economy only worsened with a series of bad harvests. The system of splitting society in three 'estates' teetered on the point of collapse as the Third Estate, which made up more than 90 per cent of the population (the First and Second comprised the clergy and nobility), wanted more power and resented paying essentially all of the taxes.

And while the Enlightenment promoted reason, liberalism, liberty and equality, France suffered under an ineffective absolute monarch, Louis XVI. The autocratic regime needed a strong figurehead to be stable, and that was not the weak willed and indecisive Louis. His response when the first revolutionary actions took place was poor, and his hold on armed forces uncertain, especially in events around the storming of the Bastille.

If it were not for these events coming together as they did, so much would be different. The revolutionaries blew apart the political and social order, not just in France but around the world, and changed the nature of democracy. "Our modern conception of politics arose directly from the revolution," says Linton, whose new book is *Terror: The French Revolution and Its Demons*, co written with Michel Biard. "The concepts of 'left' and 'right' in politics came about from the positions that revolutionary deputies occupied in the national assemblies."

AVOIDING THE CHOP

For the revolution not to have broken out in the first place would have required tackling the state bankruptcy and stronger leadership from the king. If the monarchy had been able to raise credit, says Linton, the regime could have kept afloat. "Here, the nobles in the Assembly of Notables in 1787 and the magistrates of the Paris *parlement* all of whom blocked attempts at financial reform to make the nobles pay a fairer share of taxation bear a considerable responsibility."

As for Louis, he would have needed to act more ruthlessly to cut the revolution down before it got going. He could have imprisoned the leaders of the Third Estate in June 1789 when they called themselves the National Assembly, suggests Linton, and "dealt brutally with them to set an example and frighten others". If he had succeeded and remained on the throne, rather than lose his head on the guillotine, he may have enjoyed a better reputation for the rest of his reign as the king who put down a would be uprising.

In France, the changes would have been profound. The Terror would not have taken place a period of bloody violence, executions and fear aimed at supposed enemies of the revolution and there would have been no decline in the importance of the Roman Catholic Church, which happened as power

IN CONTEXT

After prevailing for centuries, the *ancien régime* of France collapsed with the outbreak of revolution in 1789. The country's political and social fabric was undone – with the aim of creating a more representative, more equal and more tolerant system – and the king and queen executed on the guillotine. But new governments did not last long, and chaos constantly loomed, leading military commander Napoleon Bonaparte to seize power. In 1804, he declared France an empire.

The impact of the French Revolution was felt all over Europe and beyond during the 19th century. As calls for greater democracy and individual freedoms grew louder, the Enlightenment ideals seen in France sparked other revolutions, and also a flourishing of nationalist movements. Everything from the growth of liberalism, end of feudalism, downfall of absolute monarchies, development of the nation state, and changing attitudes towards religion can be traced back to the French Revolution.

Louis XVI was executed in Paris in January 1793. The same fate would befall his wife, Marie Antoinette, later that year

GETTY IMAGES X3

MAIN: **Napoleon seizes power during the Coup of Brumaire in 1799. The general would have remained in obscurity had it not been for the revolution**

INSET: **Crowds of insurgents storm France's Legislative Assembly in 1792, demanding an end to the constitutional monarchy of Louis XVI**

shifted to the state. The French flag and anthem known today wouldn't exist, and if French people had no reason to flee to other European countries, there wouldn't have been the same spread of ideas as seen in the 19th century.

Then there's Napoleon Bonaparte. "He would never have come to power, never been heard of," states Linton. The revolution had given young officers the chance to rise through the ranks, and Napoleon had seized the opportunity to take his career to the top of the French military and then politics. "The expansionist wars that the French Republic engaged in after the fall of Maximilien Robespierre [architect of the Terror, executed in 1794] led to more destabilisation and the rise of new opportunities for military leaders. The Coup of Brumaire in 1799 was essentially a military coup whereby Napoleon took power for himself."

Removing the Napoleonic Wars changes the geopolitical landscape of Europe. Nations would not have fallen under his regime or united against him,

DID YOU KNOW?

SPARKING REVOLUTION

When the Bastille was stormed on 14 July 1789 – the spark that lit the revolutionary flame – there were only seven prisoners there. The revolutionaries were more interested in the hundreds of barrels of gunpowder stored at the prison fortress.

"THE REVOLUTIONARIES BLEW APART THE POLITICAL AND SOCIAL ORDER, NOT JUST IN FRANCE BUT AROUND THE WORLD"

leading to simply unknowable results. They could have turned on each other if attentions were not drawn to France, or there could have been more fighting over colonial assets. "Nationalism in the 19th century owed much to Napoleon," points out Linton, "and to opposition in Europe to Napoleon's armies."

"The rise of nationalism, socialism, liberalism and conservatism are all attributable to the French Revolution. It inspired more revolutions, and a new articulation and understanding that politics should be for the benefit of the people," she adds. "But it also gave rise to more conservative opposition to revolution. Elites had seen the French Revolution with horror and didn't want anything like that to succeed ever again."

If the French Revolution hadn't succeeded, it can certainly be said that there would be a very different looking Europe today, without the same national borders and alliances or the widespread commitment to democracy and the rights of the individual. *Vive la révolution*, indeed.

LISTEN

BBC RADIO 4

Professor Marisa Linton discusses the rise of Maximilien Robespierre in *The Invention of France*: *bbc.co.uk/programmes/b06knkfs*

NEXT MONTH

What if... George III hadn't lost the American colonies?

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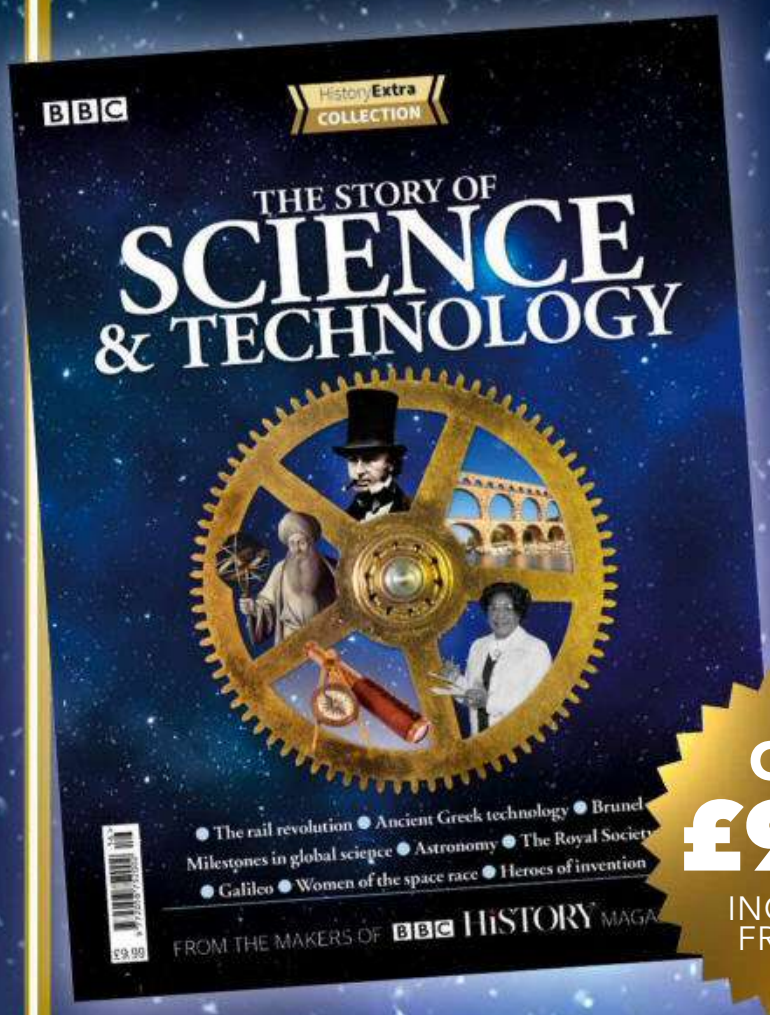

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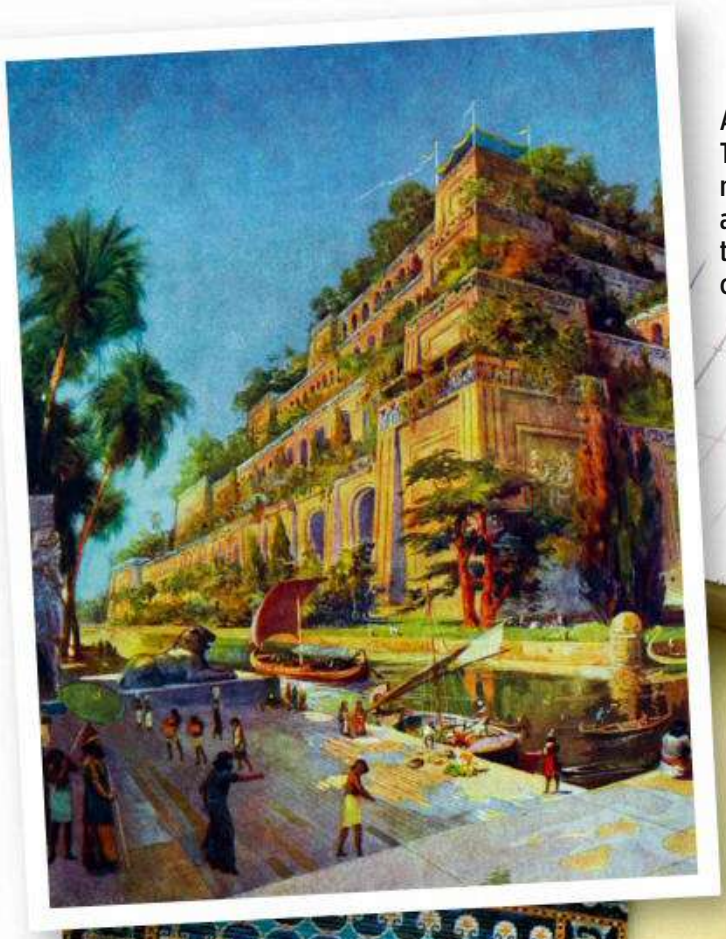
1955

The year that Dewey Beard died, the last survivor of the battle of Little Bighorn in 1876 and the Wounded Knee massacre of 1890.



ANCIENT MARVELS
The Ishtar Gate (*main*), now located in modern-day Iraq, was occasionally listed as one of the 'Seven Wonders' alongside the Hanging Gardens of Babylon (*inset*)

Who selected the Seven Wonders of the World?

SHORT ANSWER **Hellenistic holidaymakers compiled lists of wondrous sights, but couldn't make up their minds**

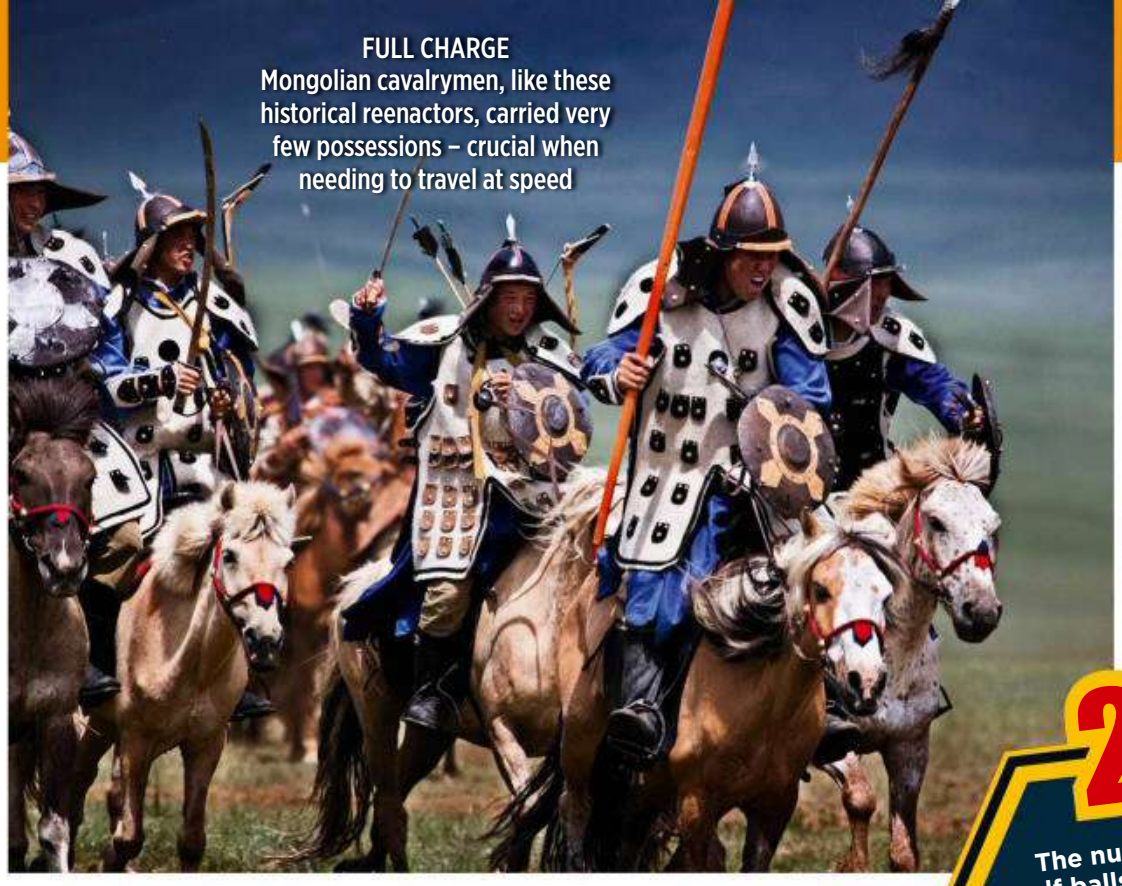
LONG ANSWER When ancient Greek travellers toured around the Mediterranean in the second and first centuries BC – taking in conquered lands and civilisations, and seeing places like Egypt, Persia and Babylon – some of them recognised that this could be the beginning of a booming tourism industry. To aid future visitors, they wrote guidebooks of the awesome feats of engineering and architecture they encountered along the way, which they called *theamata*, or 'sights'.

As this was rather an inadequate description for some of the most extraordinary constructions of antiquity, this eventually morphed into *thaumata*, or 'wonders'.

There was never a single, definitive list of the Seven Wonders, as each writer could add whatever sites they wanted, although most tended to settle on seven selections since this was a spiritual number representing perfection. Lists comprising different buildings, monuments and mythical locales kept proliferating for centuries, until finally the discussion of what constituted a 'wonder' settled down around the time of the Renaissance.

Today's Wonders are an amalgamation of several different lists, the best known compiled by the second-century BC poet Antipater of Sidon and the enigmatic mechanics engineer Philo of Byzantium. In their lists, however, the Lighthouse of Alexandria didn't make the final cut, both opting to include the Ishtar Gate of Babylon instead.

GETTY IMAGES X1, ALAMY X1



FULL CHARGE
Mongolian cavalrymen, like these historical reenactors, carried very few possessions – crucial when needing to travel at speed

Why was the Mongol cavalry so effective?

SHORT ANSWER Lots of training and leadership under Genghis Khan, and lots of practice with a bow and arrow

LONG ANSWER The Mongols went from a nomadic people of the Eurasian Steppe to conquering the largest contiguous land empire in history. They were always natural riders, but it was Genghis Khan who whipped them into a disciplined and well-equipped cavalry capable of taking on the Chinese and Persians.

Their horses may have been small, but they were strong, swift and would be armoured like their riders. The cavalry travelled extremely light, which allowed them to carry out lightning-quick attacks to devastating effect. But the Mongols' weapon of mass destruction was the bow: powerful enough to pierce armour and with a much larger range than the enemy (perhaps as far as 500 metres), and user-friendly enough to be fired from a horse. Mongol warriors were also trained to release their arrows at the exact moment all four hooves were off the ground to ensure the greatest possible accuracy.

2

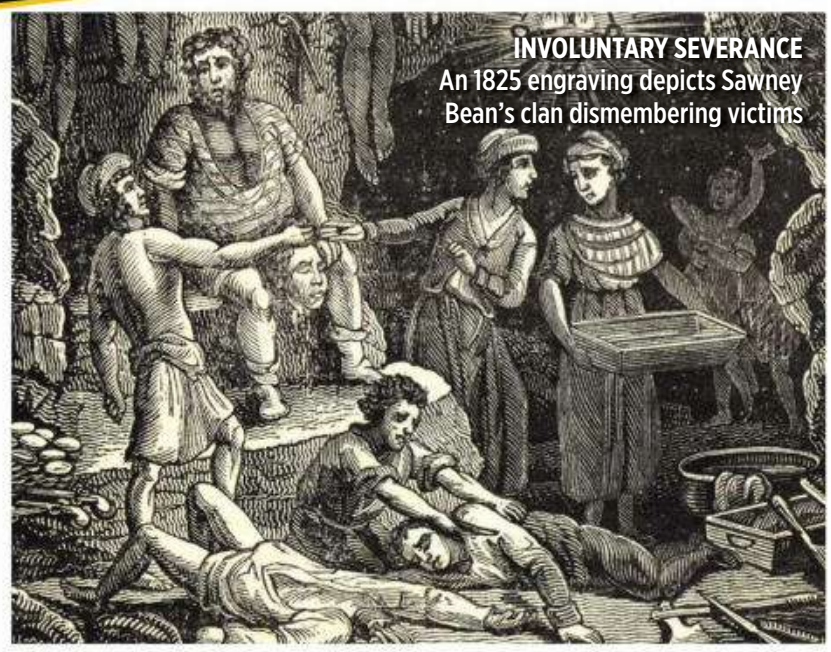
The number of golf balls currently sitting on the Moon, after American astronaut Alan Shepard decided to tee off during the Apollo 14 mission in 1971.

Was Sawney Bean a real person?

SHORT ANSWER His life sounds like a horror movie and was as real as one, too

LONG ANSWER As the story goes, Alexander 'Sawney' Bean led a deranged and a disturbingly close clan in 16th-century Scotland. He lived in a cave on the southwest coast, between Girvan and Ballantrae, with his wife, eight sons, six daughters and 32 grandchildren – all one happy and incestuous family. Oh, and cannibalistic. They ambushed, robbed, killed and ate travellers near their hidden cave. Eventually, after 25 years and 1,000 human feasts, Sawney Bean and co were hunted down and executed, perhaps by King James VI himself. Except, not really.

He probably never existed. The stories emerged much later than his supposed life, appearing in cheap shocker English publications at a time when those south of the border were keen to portray the Scots as uncivilised.



INVOLUNTARY SEVERANCE
An 1825 engraving depicts Sawney Bean's clan dismembering victims

SCRATCHING THE SURFACE
A 24th-century BC cuneiform tablet lists the barley rations given to adults and children

Is cuneiform a language?

SHORT ANSWER The script popped up not just in one language, but over a dozen

LONG ANSWER Cuneiform is the **world's oldest-known system of writing, developed in around 3400 BC in the ancient Middle East to make bookkeeping a little easier for scribes. Only if you knew how to read it, of course. Using a specially cut reed called a stylus, a series of wedge-shaped** marks would be pressed into soft clay tablets, but these weren't letters and cuneiform wasn't a language on its own.

Rather than an alphabet, it used anywhere between 600 and 1,000 characters or phonograms (symbols representing sounds) to spell out the syllables of words, or pictographs to stand in for other words. More than a dozen languages adopted cuneiform, including Sumerian and Akkadian in Mesopotamia, and the script continued to be written for three millennia, until the first century AD.

Deciphering cuneiform, however, didn't begin in earnest until the 19th century, and approximately 90 per cent of texts using those odd wedge shapes still remain untranslated to this day.

GETTY IMAGES X4, ALAMY X2

Did the Nazis force Hungarian prisoners to play a football match?

SHORT ANSWER

Don't believe everything in historical movies; even a real game can become more myth than fact

LONG ANSWER No, the tale of prisoners being forced to play an elite Nazi team to honour Adolf Hitler's birthday is not from a history book, but the plot of the 1961 Hungarian film, *Two Half Times in Hell*. However, like plenty of movies today, Zoltan Fabri's cinematic drama could have opened with the words, 'based on a true story'.

On 9 August 1942, a team of Ukrainian (not Hungarian) players called FC Start took on Flakelf, made up from the German armed forces. They were the best the Nazis had to offer, allegedly kept from the front lines by Hermann Göring himself to ensure their safety. Yet FC Start had pre war professionals in their line up, and won 5 3. It was actually the second time in three days these teams played: the Ukrainians thrashed the Germans 5-1 the first time.

DANGEROUS GAME
A poster advertising the real-life 'Death Match' of 1942, in which Ukrainian troops took on the Nazis at football

The well publicised rematch became the stuff of propaganda legend, exploited by the Soviets as a display of communism's great victory over fascism. Untrue stories emerged of Gestapo or SS officers officiating, of armed soldiers patrolling the pitch, and of the FC Start players being executed after the final whistle still wearing their kits dubbing the event the 'Death Match'. Yet, while not all FC Start players made it through the war, they certainly made it off the pitch alive.

DID YOU KNOW?

ANCIENT ACCESS
Recent research has suggested that the ancient Greeks built their temples, especially those used for healing rituals, with mobility access so everyone could attend. The Sanctuary of Asclepius at Epidaurus had 11 stone ramps.

CUPS AND MEDALS
The Great Depression meant many nations could not afford to attend the 1932 Olympics in Los Angeles. The Brazilian team only managed to secure the required funds by travelling on a ship full of coffee beans, which they sold along the way.

A CIGARETTE A DAY...
The 16th-century Spanish physician and botanist Nicolas Monardes believed one plant had essentially cure-all benefits: tobacco. He claimed it could treat dozens of ailments, from colds to cancer.

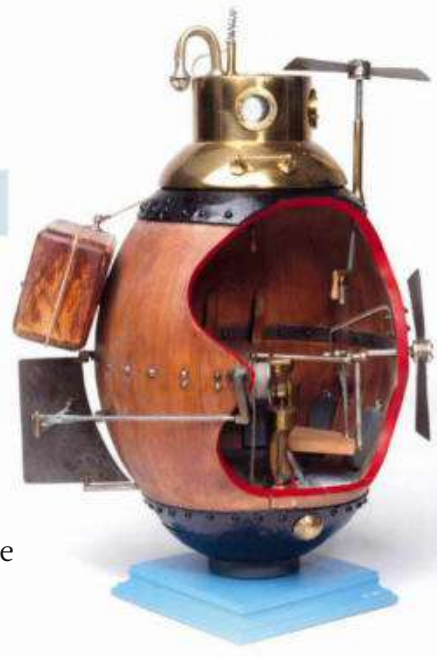
GOOD DAY, SIR
At the battle of the Golden Spurs in 1302, a Flemish militia made up of craft guild members defeated a professional French army. They used a weapon called the *goedendag* ('good day weapon') – a deadly combination of a club and a spear.

When was a submarine first used in battle?

SHORT ANSWER **In 1776... unsuccessfully**

LONG ANSWER While Dutch inventor Cornelis Drebbel is known to have built an early type of "diving boat" in 1620, the combat submarine had to wait another 150 years. During the American Revolutionary War, David Bushnell created the *Turtle*: a one man craft designed to allow the Americans to sneak up on British warships and rig them with explosives. However, all attempts at using the *Turtle* failed, and it was lost in 1776 (the same year it launched) when its transport vessel was attacked.

So, it was another century before the first sinking by a submarine in battle. The *HL Hunley*, a Confederate vessel in the American Civil War, dragged a torpedo against the USS *Housatonic* in 1864, killing five crew. The victory was short lived, however, as the *Hunley* sank on its way back to base.

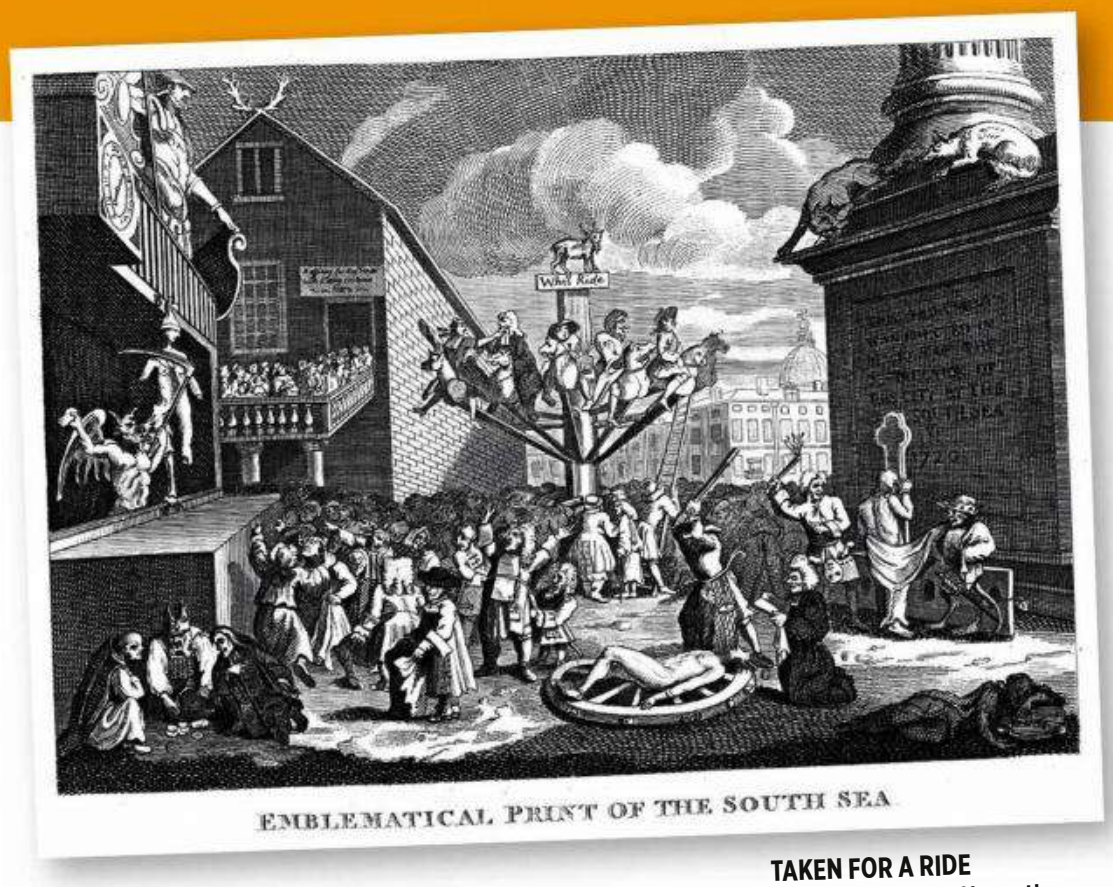


TURTLE FAILURE
David Bushnell's combat submarine, the *Turtle*, never worked successfully

Who invented canned food?

SHORT ANSWER **A chef named Nicolas Appert, although he didn't use cans**

LONG ANSWER In the late 1790s, the French government launched a competition to find a solution to storing food without it spoiling – a pressing issue for feeding the army. It took 14 years, but chef and confectioner Nicolas Appert won in 1809 by preserving food in hermetically sealed cans, effectively sterilising the contents five decades before Louis Pasteur came along. Appert used the 12,000-franc prize to establish a cannery, which remained in operation until 1933. In truth, though, he used glass bottles for his canning. It was an Englishman, Peter Durand, who patented tin-coated iron cans only a year after Appert.



TAKEN FOR A RIDE
An engraving by William Hogarth mocks the greed of those riding the South Sea 'merry-go-round'

What was the South Sea Bubble?

SHORT ANSWER In 1720, Britain suffered its first major stock market collapse

LONG ANSWER The British-based South Sea Company was established in 1711 with the aim of securing a trading monopoly, mainly in enslaved people, with the Spanish colonies in South America. In return, it would take on the national debt, which had built nicely thanks to wars with France and Spain. This was the early days of the stock market when it was even more confusing than it is now.

Despite only moderate success, in 1720 the company's share prices rocketed from £128 to more than £1,000. Speculations ran amok and hordes of companies were launched in the hopes of cashing in, from the opportunistic to the fraudulent. The business of one was simply: "For carrying-on an undertaking of great advantage but no-one to know what it is."

The bubble burst, bankrupting the South Sea Company's investors. Politicians were implicated, directors accused of treason, and the chancellor briefly locked up in the Tower of London. The South Sea Bubble became a byword for financial disaster.

What are the Benin Bronzes?

SHORT ANSWER Thousands of examples of Benin art, which haven't been in Benin since the late-19th century

LONG ANSWER Since 1897, when a British expedition was sent to the Kingdom of Benin (southern Nigeria) to establish imperial rule in that region of Africa, more than 3,000 pieces of art, sculpture and plaques have been held around the world, many in the British Museum. Made by the Edo people for the royal court of the *oba* (king), they date from at least the 16th century and, despite the name, boast beautiful craftsmanship in brass, ivory and wood, as well as bronze.

Like other artefacts – the so-called Elgin Marbles, for example – the Benin Bronzes have long been a source of controversy, with their repatriation demanded by many. A new museum, the Edo Museum of West African Art, is planned for the site of Benin City to house them.

11
The number of rules that *Animal Farm* author George Orwell had for creating the 'perfect' cup of tea, including only using Indian or Ceylonese tea, and not adding any sugar.

A LONG WAY FROM HOME
Many critics have called for the artefacts to be repatriated to Benin City

GETTY IMAGES X4, ALAMY X5

When was the first Ashes?

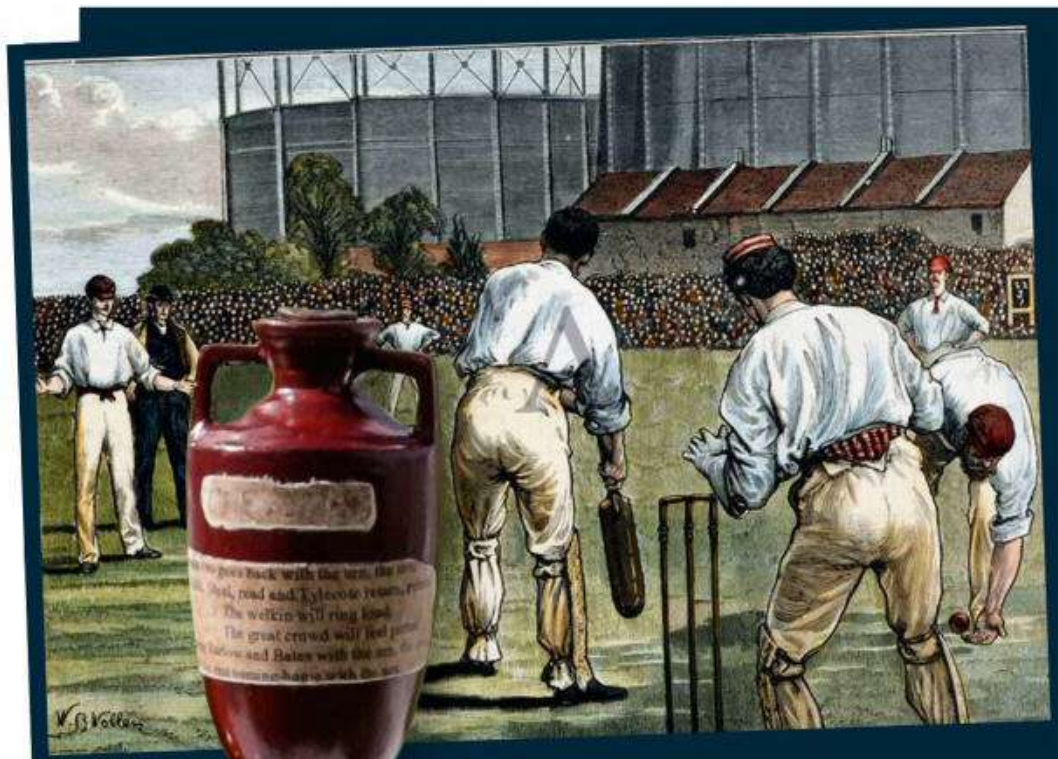
SHORT ANSWER From the ashes of a shocking defeat for English cricket in 1882 rose one of sport's great rivalries

LONG ANSWER Five years after their first test match, England and Australia played at the Oval in London in August 1882. It didn't go well for the hosts. England had never lost to a visiting Australian team, but fell agonisingly short in their run chase thanks to brilliant bowling by Fred Spofforth.

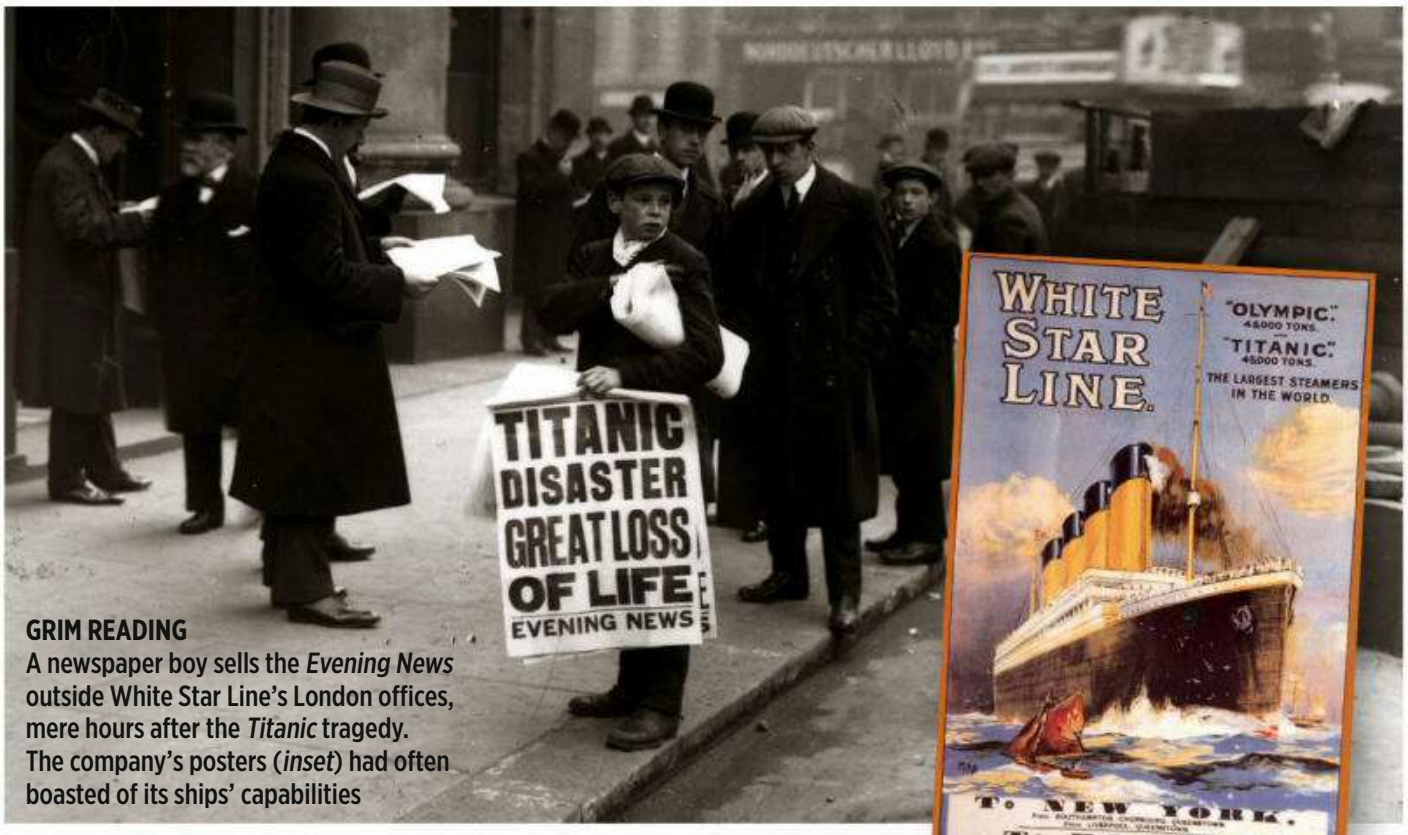
The shock defeat sent the newspapers into a frenzy, none more so than *The Sporting Times*, which published an obituary for English cricket, saying that "the body will be cremated and the ashes taken to Australia".

So when England headed Down Under for a test series later that year, redemption was needed, with the captain, Ivo Bligh, declaring that his team would "try to recover those ashes".

And they did, winning the series 2-1. Bligh was presented with a small terracotta urn – which may have been a perfume jar – with the ashes of a burnt cricket bail inside. And so a great rivalry was born.



A WELL-URNED VICTORY
A cartoon depicts England and Australia's legendary test match at the Oval in 1882 (*above*). Since then, the two nations have battled to win cricket's fabled 'ashes' (*left*)



GRIM READING
A newspaper boy sells the *Evening News* outside White Star Line's London offices, mere hours after the *Titanic* tragedy. The company's posters (*inset*) had often boasted of its ships' capabilities

Was Titanic actually declared to be "unsinkable"?

SHORT ANSWER Ironically enough, what made sure *Titanic* would be remembered as "unsinkable" was its sinking

LONG ANSWER Make no mistake, RMS *Titanic* was a state of the art ship with advanced safety features, so it should come as no surprise that there were claims milling around that it couldn't be sunk. In an age of mighty ocean liners, this was the usual blustering. An advertisement by the ship's owners, White Star Line, said not only of *Titanic*, but *Olympic*, too: "As far as it is possible to do so, these two wonderful vessels are designed to be unsinkable."

Titanic certainly looked the part. Its 16 bulkhead compartments meant areas of the ship could be flooded without it going down. Architect Thomas Andrews, who was a passenger on that doomed maiden voyage, reportedly said *Titanic* could even be cut in three pieces and each would stay floating. Again, there was a heavy dose of showmanship and salesmanship in such claims.

The idea that *Titanic* was utterly unsinkable only became established on 16 April 1912… the day after it sank. Newspapers like *The New York Times* latched onto the word when reporting of the tragedy. It didn't help that White Star vice president Philip Franklin was quoted as saying to worried crowds: "The boat is unsinkable and nothing but inconvenience will be suffered by the passengers." After *Titanic*, few people had the hubris to declare a ship unsinkable again.

Did gangsters hide guns in violin cases?

SHORT ANSWER Not to be a rat and risk making friends with Tommy, but this is one cliché you can take to the bank

LONG ANSWER It's a Prohibition era gangster movie staple: an innocent looking violin case concealing a Tommy gun to hoodwink police and rival gangs. But that doesn't make it a movie invention. The Tommy, also known as the 'Chicago typewriter', could fit snugly in a specially fitted instrument case, which, at a time of organised crime in the US, could be carried around in broad daylight. The gun could then be quickly assembled when a gangster needed, if you will, to play a tune. It wasn't just violin cases: Al Capone allegedly hid his shotgun in a golf bag and newspapers that were so large they could easily conceal the weapon.

SECRET WEAPONS
Al Capone (*left*) concealed his guns in a variety of creative ways, although instrument cases (*above*) remained standard fare for many gangsters

Were chastity belts really used?

SHORT ANSWER

No. How would women have even been able to go to the toilet?

LONG ANSWER The notion that husbands once forced their wives to wear lockable metal underwear to stop them straying with other men is so on-the-nose medieval that it is understandable why people have believed them to be real for so long. Alas, chastity belts didn't actually exist.

Just in terms of practicality, they would never have worked. What about the poor woman's bathroom needs? References to locking up a woman's private parts do go back to the first millennium AD, but were intended as a metaphor or satire of her fidelity and purity. It wouldn't be until 1405 before we find the earliest-known illustration of a workable chastity belt, and that is in Konrad Kyeser's book *Bellifortis*, which, as it also contains flatulence jokes and an instrument to turn a person invisible, shouldn't be taken too seriously. As for the chastity belts sometimes found in museums, they were likely made as a joke.

BEDROOM ANTICS
A c1590 caricature shows a man locking his wife's chastity belt – but she has a secret key

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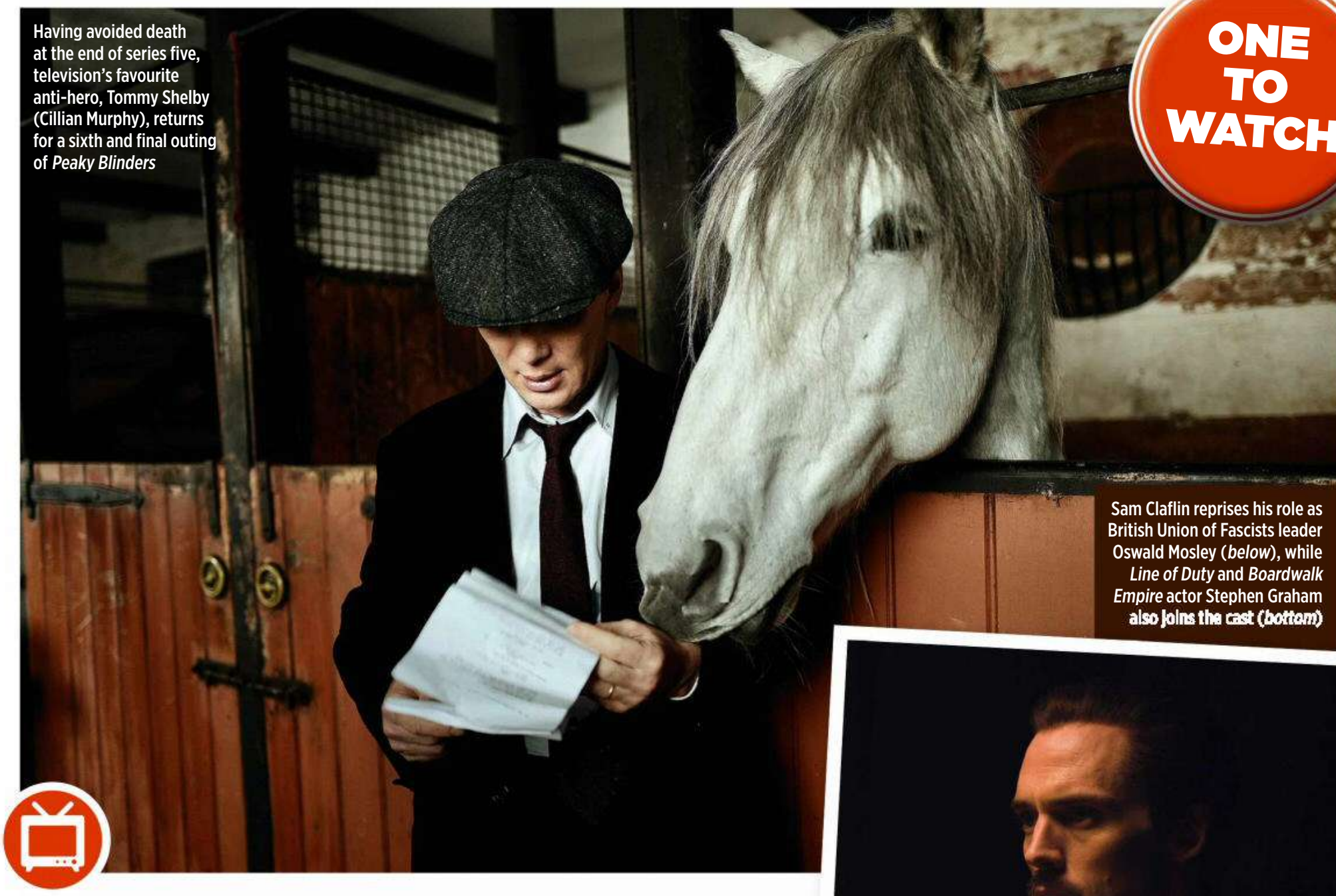


Having avoided death at the end of series five, television's favourite anti-hero, Tommy Shelby (Cillian Murphy), returns for a sixth and final outing of *Peaky Blinders*

ONE TO WATCH

Sam Claflin reprises his role as British Union of Fascists leader Oswald Mosley (*below*), while *Line of Duty* and *Boardwalk Empire* actor Stephen Graham also joins the cast (*bottom*)

CARYN MANDABACH PRODUCTIONS X3

A family affair

Peaky Blinders / BBC One, February

After weeks of teasers and hints on social media, it's official. Tommy Shelby (Cillian Murphy) and co are back on our screens this winter as the Brummie gangster saga reaches its sixth and final series although not its conclusion as, according to creator Steven Knight, we can still expect a big screen outing in the future.

In the meantime, and with a mild spoiler alert for anyone catching up on the series via streaming, we rejoin Tommy immediately in the wake of series five. Having squared up to odious fascist leader Oswald Mosley (Sam Claflin), Tommy has suffered a rare setback. Why? How? And will he really take his own life?

It's probably not much of a surprise to reveal that, no, Tommy doesn't succeed in ending it all. But, as the story jumps forward four years from 1929 to 1933, that doesn't mean Tommy's untouched by what he's been through. It all adds an extra layer of complexity to an anti-hero who was already one of the great fictional creations of the box set television era.

As for what else we can expect, to judge by the first episode the plot will involve a connection to Boston, bitter familial strife and, in the immediate aftermath of the bootlegging era, Tommy enacting a cunning plan involving smuggling and a bleak island locale in the North Atlantic. Although, with *Peaky Blinders*, what you initially see is only ever part of what's really going on.

Elsewhere, Mosley will return, while there's been an alpha male face off teaser on social media featuring both Tommy and Alfie Solomons (Tom Hardy). In addition, Stephen Graham has joined the cast.

Sadly, Helen McCrory, who played Polly Gray, died before Covid delayed filming commenced. Her presence will be much missed. As co-star Murphy noted in tribute, "[She was] one of the finest actors I've ever worked opposite… She could do power and vulnerability, one after the other."

Michael Portillo's latest series of rail-based adventures sees him navigate the windswept coastlines of the British Isles

MAIN: **Works by Otto Dix, such as his 1920 etching *The Match Seller*, were held up by the Nazis as examples of 'degenerate art'**

BELOW: **British artist Daphne Todd with her award-winning painting *Last Portrait of Mother*, which attracted both praise and criticism for its unflinching depiction of a taboo subject**

Controversial images

Mary Beard's Forbidden Art / BBC Two, January

Blessed with a rare ability to convey complex ideas with clarity, warmth and wit, Professor Mary Beard has become one of Britain's best-known broadcasters. In part, this fame rests on her no-nonsense approach to subjects some consider controversial, something that's certainly in evidence in this two-part series.

As its title suggests, *Mary Beard's Forbidden Art* finds the renowned classicist and art historian considering works that tackle difficult subjects – and which some would prefer were never seen at all. Which artworks, she asks, are not seen because they're deemed too controversial? Why does this happen? And who decides who gets to see what?

One of the artists featured, for example, is Otto Dix (1891–1969). In World War I, Dix volunteered to serve in the German Army, and he fought at the battle of the Somme and on the eastern front in the war against Russia. His experiences inspired a series of works that reflected the brutality of war, including haunting etchings and such paintings as *The Trench* (1923), a nightmarish lost work that may have been destroyed during World War II.

These depictions of less-than-glorious conflict **attracted the ire of the Nazis, who included his work in the *Entartete Kunst*, a 1937 exhibition of 'degenerate' art in Munich featuring works confiscated from German museums.**

Other controversies are rooted **in our collective discomfort at certain kinds of images, such as Daphne Todd's haunting portrait of her dead mother, a centurion, which was painted at an undertaker's premises. Plus, Mary speaks with Tracey Emin.**

Professor Mary Beard's new two-part series delves into debates surrounding art and censorship

Land and sea

Great Coastal Railway Journeys / BBC Two, Monday 24 January

Michael Portillo once again heads out to explore the world via train. The linking theme this time around is the former Conservative politician exploring the coast of the British Isles, beginning with a journey in Scotland.

His first stop is Siccar Point, close to Dunbar on the Firth of Forth. Not only is this a spectacular locale, but it was a place of discovery in the 18th century, where proto-geologist James Hutton found the evidence he needed to challenge ideas about the age of the world.

Portillo also visits Edinburgh to tell the story of the murder of David Rizzio (1533–66), Mary Queen of Scots' secretary. He was a man brutally slain in front of the pregnant monarch, a killing said to have been orchestrated by her own jealous husband and undertaken by a mob of Scottish nobles.

As well as BBC Radio 4's upcoming English-language adaptation, *Berlin Alexanderplatz* was also recently made into a film starring Welket Bungué (*left*) and Annabelle Mandeng (*right*)

ALAMY X5, GETTY IMAGES X2, NAKED/FREMANTLE X1

Music for the masses

BBC Orchestras Weekend / BBC Radio 3, Friday 11 February

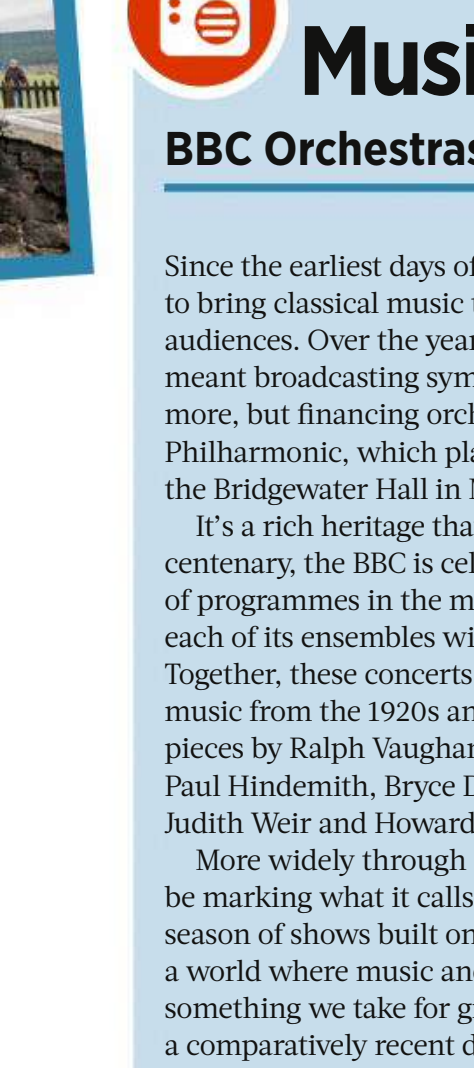
Since the earliest days of the BBC, it has sought to bring classical music to the widest possible audiences. Over the years, this hasn't just meant broadcasting symphonies, operas and more, but financing orchestras such as the BBC Philharmonic, which plays most of its concerts at the Bridgewater Hall in Manchester.

It's a rich heritage that, as part of its 2022 centenary, the BBC is celebrating over a weekend of programmes in the middle of February, when each of its ensembles will give a live broadcast. Together, these concerts will feature classical music from the 1920s and the 2020s, including pieces by Ralph Vaughan Williams, Maurice Ravel, Paul Hindemith, Bryce Dessner, Errollyn Wallen, Judith Weir and Howard Goodall.

More widely through 2022, BBC Radio 3 will be marking what it calls *The Sonic Century*. It's a season of shows built on the idea that we live in a world where music and sound are ubiquitous, something we take for granted despite this being a comparatively recent development ushered in by the age of radio.

The story of the microphone features. For all the unwieldy bulkiness of early models, this was once a piece of kit at the cutting edge of technology, a symbol of the BBC. There's also a look back at the BBC's first significant political test in a drama dealing with the General Strike of 1926, when chancellor of the Exchequer Winston Churchill unsuccessfully sought, in the words of Auntie's managing director John Reith, to "commandeer the BBC".

A weekend of concerts will celebrate the proud history of the BBC's musical ensembles (*main*), while ***The Sonic Century*** will reveal how Winston Churchill (*inset*), attempted to "commandeer" the corporation while serving as chancellor of the Exchequer



Back on the streets

Berlin Alexanderplatz / BBC Radio 4, Saturday 5 February

First published in 1929, *Berlin Alexanderplatz* propelled German novelist Alfred Döblin (1878–1957) to international literary fame. Using the techniques of modernism and sometimes compared to the work of James Joyce, it tells the story of Franz Biberkopf, a Berliner recently released from prison.

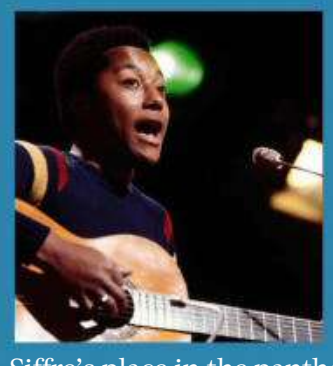
He's a man determined to mend his ways, but this proves far more difficult than Biberkopf anticipates as, after a friend murders a prostitute, he's dragged back down by the underworld from which he wishes to free himself. Told from multiple points of view and using montage techniques, the book was seen as daring and innovative in its day. Latterly, it has come to be regarded as one of the most important German novels to emerge from the Weimar Republic era.

The Nazis were less keen and, as a critic of National Socialism, Döblin fled Germany when Hitler took power. Between 1933 and 1940, he lived in France before being forced to escape again when the Nazis invaded, to Los Angeles.

This two-part adaptation of the novel is dramatised by playwright Simon Scardifield, working from Michael Hofmann's acclaimed 2018 translation. Meanwhile, Lee Ross, who played Mickey Bliss in *Tommies*, BBC Radio 4's drama telling stories of the Great War exactly a century after they occurred, stars as Biberkopf.

Radical and trailblazer

Imagine... Labi Siffre / BBC One, February



As the composer of 'It Must Be Love' and the protest anthem '(Something Inside) So Strong', British singer-songwriter Labi Siffre's place in the pantheon is all but assured – especially when you take into account the number of times his work has been sampled.

But to see him just as a musician is to underestimate Siffre's importance. A gay black man born in 1945 in Hammersmith, Siffre's life has encompassed decades of social change, reflected in his output across songs, poems, essays and theatre.

EVENTS & EXHIBITIONS

WHAT TO SEE AND WHERE TO VISIT IN THE WIDER WORLD OF HISTORY

EXHIBITION

The World of Stonehenge

PAID ENTRY British Museum, London, 17 February – 17 July, *britishmuseum.org*

A major new exhibition focusing on the history of Stonehenge is set to open at the British Museum in February.

Featuring more than 430 artefacts, the display explores the story behind the world-famous Wiltshire landmark, shedding light on its elusive origins, the people who built it, and the big questions that still puzzle archaeologists and historians to this day.

As well as examining the legacy of the 4,500-year-old monument, the exhibition will also look at life in Neolithic Europe more broadly, with many items on display in the UK for the first time. Among the highlights is the Nebra Sky Disc, a metallic map of the stars discovered in Germany, as well as a collection of stone axes uncovered in the North Italian Alps.

Taking centre stage, however, will be the remains of Seahenge, a 4,000 year old timber circle erected on a Norfolk beach sometimes dubbed the 'Stonehenge of the Sea'. Comprising an upturned tree stump surrounded by 54 oak posts, the monument's existence was only revealed in 1998, when it was exposed by shifting sands.

Elsewhere, visitors will also be able to view treasures unearthed close to Stonehenge, such as those excavated from the grave of the Amesbury Archer a Bronze Age man whose remains were discovered alongside some of the oldest known gold objects ever found in Britain.

STATE OFFICE FOR HERITAGE MANAGEMENT AND ARCHAEOLOGY SAXONY-ANHALT, JURAJ LIPTÁK, ENGLISH HERITAGE, HISTORISCHES MUSEUM DER PFALZ SPEYER, NATIONAL MUSEUM OF DENMARK/OFRET MUSEUM, NATIONAL

ABOVE LEFT: **The Schifferstadt gold hat, c1600 BC, found alongside three bronze axes in Germany**

ABOVE: **A bronze horse-snake hybrid from a Danish hoard, dated 1200–1000 BC**

LEFT: **The Nebra Sky Disc, also discovered in Germany and dated by experts to c1600 BC**

Stonehenge has captivated historians, archaeologists and sightseers for centuries

Portraits in the exhibition include a c1588 painting of Elizabeth I by an unknown artist (*above*), plus a miniature of famed explorer Sir Walter Raleigh, created by Nicholas Hilliard around 1585 (*right*)

EXHIBITION

The Tudors: Passion, Power & Politics

PAID ENTRY The Holburne Museum, Bath, 28 January – 8 May, *holburne.org*

Paintings depicting the men and women who spearheaded one of England's most influential royal dynasties are set to go on display in Bath.

Thanks to a new partnership with the National Portrait Gallery, paintings of Henry VII, Henry VIII, Edward VI, Mary I and Elizabeth I will be exhibited at the city's Holburne Museum until 8 May, alongside images of other famous Tudor figures, such as Thomas Cromwell and Sir Walter Raleigh. Some of the artworks have never been displayed outside of London, while the exhibition's 1505 portrait of Henry VII is the oldest item in the entire National Portrait Gallery collections.

Once the exhibition closes in Bath, it will be transferred to Liverpool's Walker Art Gallery, where it will go on show from 20 May to 29 August.

EXHIBITION

Top Secret: From Ciphers to Cyber Security

FREE ENTRY National Science and Media Museum, Bradford, 11 February – 5 June, *scienceandmediamuseum.org.uk*

Over the past century, Britain's intelligence services have been busy behind closed doors, helping to keep the nation safe. Although much of their work is still carried out in strictest secret, a new exhibition in Bradford seeks to bring the story of this clandestine world to life, showcasing items from GCHQ and the Science Museum Group collections.

Objects on display include examples of German Enigma machines, as well as ephemera relating to the Portland spy ring, which was infiltrated by MI5 in 1961. Meanwhile, visitors will be able to test their codebreaking skills in the exhibition's 'puzzle zone'.

The story of the Bletchley Park codebreakers will form an integral part of the exhibition

EXHIBITION

In Plain Sight: Transatlantic Slavery and Devon

FREE ENTRY Royal Albert Memorial Museum, Exeter, 29 January – 29 May, *rammuseum.org.uk*

Devon's role in the transatlantic slave trade is set to be the focus of a new exhibition opening at the Royal Albert Memorial Museum in Exeter. Featuring an array of historic artefacts, the display will reveal how local figures and businesses profited from the trafficking of enslaved people, and the numerous other ways in which the region's connections to slavery have been hidden 'in plain sight'.

Objects on show will include a wax seal used by George III, depicting enslaved people toiling a sugar plantation, as well as a collection of shell axes made by the inhabitants of Dominica. Meanwhile, a short film will explore the story of the museum's *Portrait of an African* (*pictured right*), which is the subject of new research.

ABOVE: **A silk embroidered panel showing a woman with a black servant**
INSET: **The man depicted in *Portrait of an African* is still the subject of debate**

EXHIBITION

Brothers in Arms

FREE ENTRY National Army Museum, London, until 6 May, *nam.ac.uk*

At the end of World War II, the Sherwood Rangers Yeomanry emerged with more battle honours than any other unit in the British Army. After serving in North Africa, the tank regiment went on to fight on the frontline in northwest Europe, all the way from D-Day in June 1944 through to VE Day in May 1945.

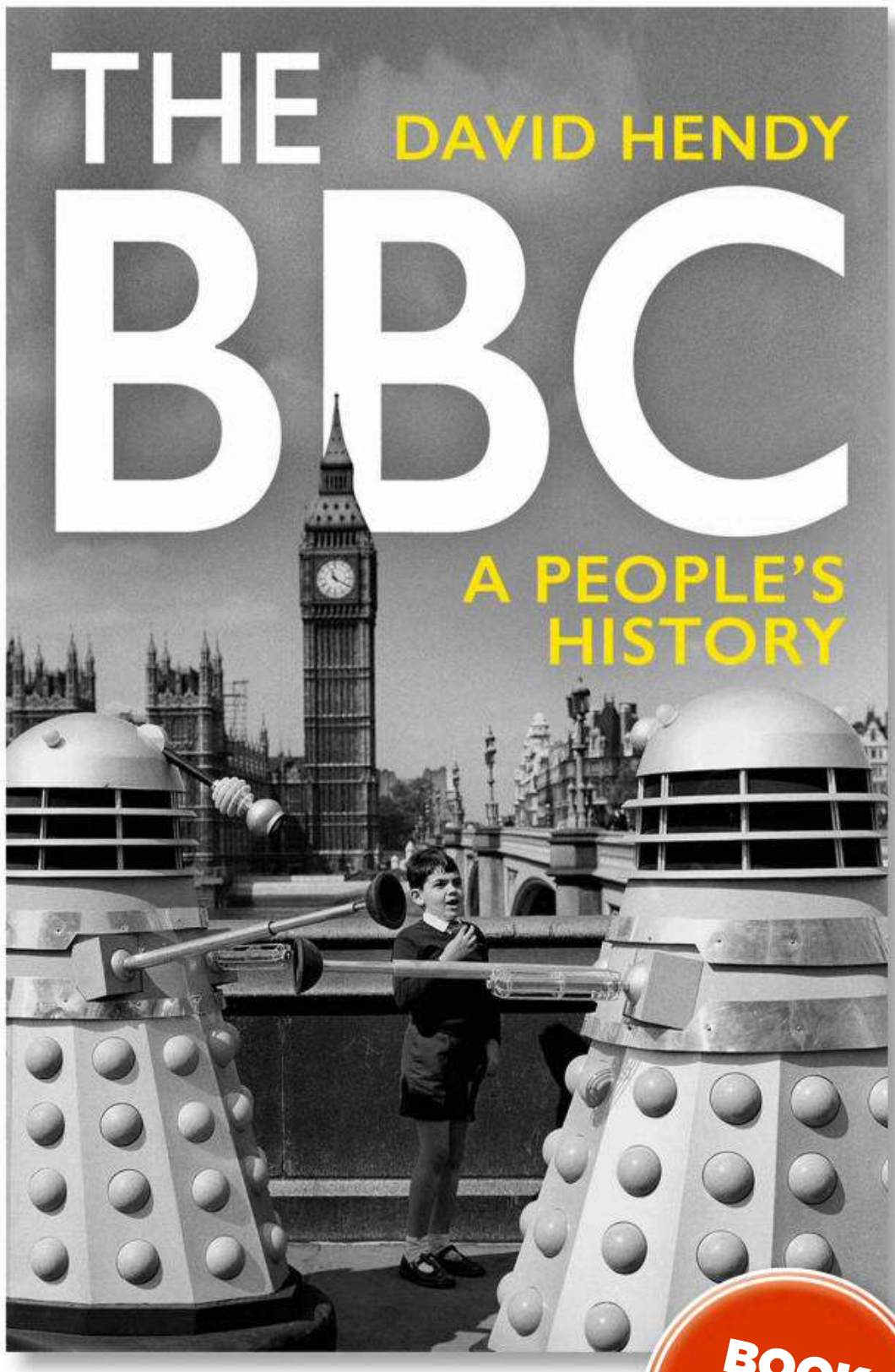
This new exhibition, curated by historian James Holland, delves into the stories of eight members of the Sherwood Rangers, shining a spotlight on the camaraderie that made the regiment so successful. The display also features items from the collections of the men and their families, including one soldier's final letter home, and a wallet that helped save its owner's life.

Curator James Holland with a Sherman tank

PORTRAIT GALLERY, LONDON X2 ROYAL ALBERT MEMORIAL MUSEUM X 2, SCIENCE MUSEUM GROUP X2, NATIONAL ARMY MUSEUM/JAMES MCCAULEY

BOOKS & PODCASTS

THIS MONTH'S BEST HISTORICAL READS AND LISTENS



BOOK OF THE MONTH

The BBC: A People's History

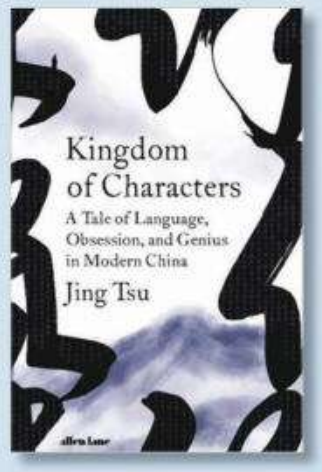
By David Hendy
Profile Books, £25, hardback, 656 pages

Nearly a century ago, on 14 November 1922, the BBC made its first broadcast. Far from the cultural behemoth it later became, the nascent institution was a ramshackle affair, harnessing scant resources and youthful optimism in an idealistic quest for a brighter world. This major new history charts those origins, and the ways in which the BBC shaped, reflected and sometimes misjudged the moods and tastes of a massively changing nation across the following decades.

Kingdom of Characters: A Tale of Language, Obsession, and Genius in Modern China

By Jing Tsu
Allen Lane, £20, hardback, 336 pages

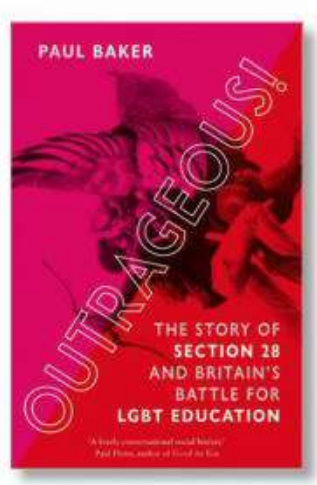
How do you ensure that a written language as ancient and complex as Chinese continues to adapt and survive? That's the question at the heart of this book, which explores how a diverse band of scholars, revolutionaries and inventors worked to rewrite the script – literally and metaphorically – to keep up with the global changes wrought by developments from the West at the dawn of the 20th century. This is a dynamic story, bound up in politics, culture, and the status of an entire nation.

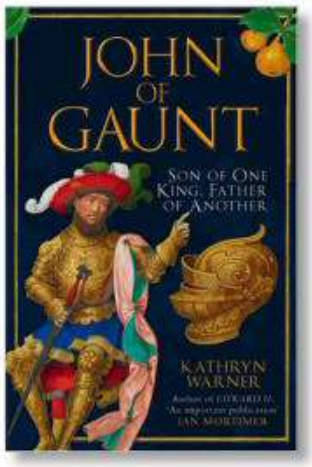


Outrageous: The Story of Section 28 and Britain's Battle for LGBT Education

By Paul Baker
Reaktion Books, £15.99, hardback, 328 pages

In 1988, Margaret Thatcher's Conservative government passed Section 28, legislation that stated that local authorities should not "intentionally promote homosexuality" or promote "the acceptability of homosexuality as a pretended family relationship" in schools. As Paul Baker explores, it was the culmination of anxieties that had been simmering throughout the decade, and was to have lasting implications for LGBTQ students and teachers. Peppered with wry asides and anecdotes, this is a profile of Britain not so long ago and of the people who fought back.





John of Gaunt: Son of One King, Father of Another

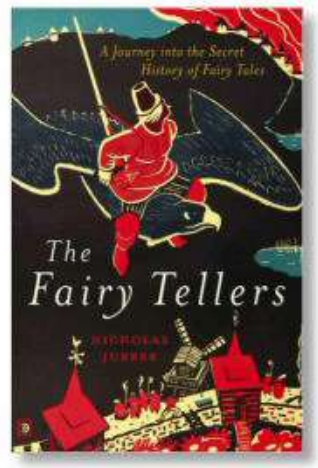
By Kathryn Warner
Amberley, £20, hardback, 320 pages

Fourteenth century prince, statesman and military commander John of Gaunt was one of the richest and most influential men of the medieval era, a towering figure whose personal, political and strategic decisions played out on a Europe wide canvas. This detailed biography which, fittingly, begins with a cast list from half a dozen nations profiles Gaunt, his dramatic exploits and relationships with those closest to him, from his royal origins to his long term relationship with Katherine Swynford.

The Doctor's Garden: Medicine, Science, and Horticulture in Britain

By Clare Hickman
Yale University Press, £30, hardback, 288 pages

In the late 18th century, Dr John Coakley Lettsom set up a garden on the outskirts of London, a botanic idyll in which he could stock plants brought back from expeditions around the world. In doing so, he was far from alone: such gardens, sites of collection, learning and experimentation, were increasingly fashionable among medical practitioners of the era. This illustrated, sometimes scholarly, history explores those gardens, and their key role in scientific and intellectual development.



The Fairy Tellers: A Journey into the Secret History of Fairy Tales

By Nicholas Jubber
John Murray, £20, hardback, 336 pages

Fairy tales can be bizarre and even gruesome (confectionary as a front for cannibalism, anyone?) but, as this vibrant book explores, they can also reveal much about the place and time in which they were created. Nicholas Jubber here sets out on a literary expedition to chronicle the origins of some of these stories, ranging from the icy north to the forests of Germany to reveal the ways in which the factual shines through the fantastical.

PODCAST WHAT TO LISTEN TO...

Each month we bring you three of our favourite podcasts from the BBC and HistoryExtra

Colour: A Human History

bit.ly/ColourPod104

Join art historian and broadcaster James Fox on a journey over the rainbow in this exploration of the diverse ways in which humans have understood colour, first published in November 2021. He's an engaging guide to the meanings attached to a whole range of shades, from revolutionary red and natural green to royal purple.

Assume Nothing: Breakup

bbc.in/33y5fS4

This podcast series reassessing episodes from history and current affairs here focuses on the division of Ireland in the 1920s. The process of imposing a border was fraught, with multiple crises along the way and the eventual decision was to have repercussions for the communities on both sides, many of which continue to reverberate to this day.

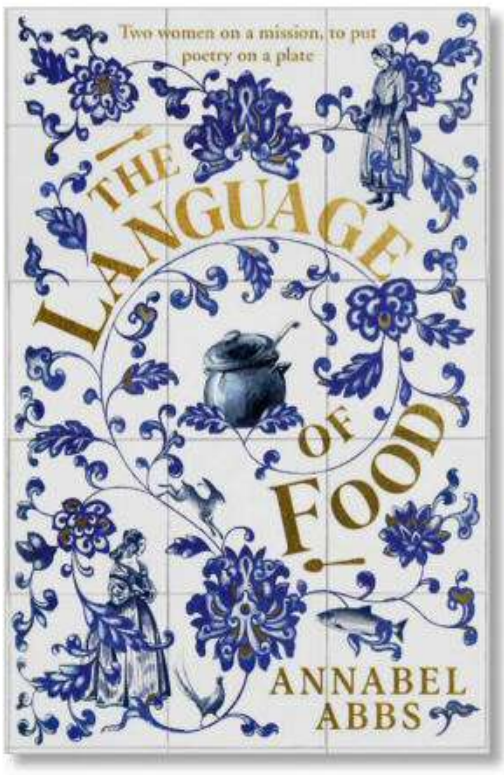
You're Dead to Me: Zheng Yi Sao

bbc.in/3pRFFPq

Her name may be unfamiliar to modern ears, but for a decade at the start of the 19th century, Zheng Yi Sao led a confederation of pirates that was successful and feared in equal measure. This episode of Greg Jenner's scintillating BBC Sounds series sees comedian Ria Lina and historian Ronald C Po join forces to chart Zheng Yi's exploits.

GETTY IMAGES X2

HISTORICAL FICTION...



The Language of Food

By Annabel Abbs
Simon & Schuster, £14.99, hardback, 416 pages

In 1835, poet Eliza Acton is forced to write a cookery book after her latest manuscript is rejected and she's told that "poetry is not the business of a lady". Despite having no culinary experience, Eliza hires a young assistant 17 year old Ann Kirby and together they embark on a journey that will end up changing the course of cookery writing forever. Based on real life events, *The Language of Food* shines a light on the woman who invented the recipe as we know it today, and whose fascinating story has long been overlooked.

Excerpt

The book's protagonist, Eliza Acton, comes to realise her extraordinary skill and instinct for cooking after serving a sumptuous evening meal for two distinguished house guests

I wake early, my eyes snapping open. In those first blurred seconds I wonder why my blood seems so wildly alight in my veins. Then I recall the previous evening – the success of my most ambitious dinner yet. Colonel and Mrs Martin ate everything, mopping up the veal gravy with slabs of bread and requesting second helpings of batter pudding. The Colonel smacked his lips with satisfaction and declared my Madeira sauce 'the best wine sauce I have ever tasted with a sweet pudding'. I know this because Mother hovered anxiously at the dining room door, eavesdropping.

I stretch and smile to myself. I didn't tell Mother the sauce recipe was almost entirely mine: the orange zest, the extra egg yolk, the little touches that made it so distinctive, so light and frothy. Ann suggested the nutmeg, and she was right. It provided an extra depth and spiced sweetness...

The sun pushes its warm saffron rays through the shutter slats so they fall in stripes across the counterpane. For a moment I feel inexplicably happy, a feeling of lightness – a bird- in- the-air feeling. And why shouldn't I? My recipes are working. I can cook as well as I can write.

GUILLEMETTE MINISCLOU

Q&A
Annabel Abbs

Annabel Abbs is a British writer of biographical historical novels. Her 2016 debut, *The Joyce Girl,* won the Impress Prize, while her second novel, *Frieda: The Original Lady Chatterley* was named as a *Times* Book of the Year in 2018. Annabel lives in London with her family.

What drew you to the story of Eliza Acton?
I 'found' Eliza Acton (1799–1859) in an antiquarian collection of cookbooks acquired from my mother-in-law and was immediately drawn to her superb prose, which was quite unlike the writing style of any other cookbooks I had seen.

But a good novel needs pace, tension and a story. Luckily, my research threw up a wonderful story – recipe theft, family secrets, unusual relationships and a woman who had never previously boiled an egg! Before becoming a cookery book writer, Acton was a poet, and this explains her elegant prose. But she also invented the recipe format as we know it today – and that intrigued me. How did a woman with no cooking experience become one of the world's bestselling cookbook authors, as well as the official inventor of the recipe?

Why do you think Eliza has been forgotten about down the years?
We know how difficult it was for women of the past to have a career, but we often forget how very complicated it was to secure a place in history. Eliza Acton faced more challenges than most: cooking was considered a servant skill, so her family made no effort to fan the flames of her legacy; she had no children with a vested interest in preserving her name; and, after she died, Isabella Beeton [author of the 1861 guide *Mrs Beeton's Book of Household Management*] swooped into the vacuum and effectively obliterated Acton.

For years, Acton languished in the long, dark shadow of the Mrs Beeton brand – which was so expertly marketed that it outlived Mrs Beeton for decades. It wasn't until the likes of Elizabeth David and Delia Smith spoke of their admiration for Acton that she began creeping back into public consciousness.

What would you like readers to take from the novel?
I'd love readers to imaginatively experience both the joys and difficulties of cooking as encountered by our ancestors. Cooking back then was a workout for both body and brain – no mixers, blenders, cookers, fridges or microwaves. Zero waste was important, too. Acton used every part of an animal or vegetable, and her messages about food are as important now as they were then.

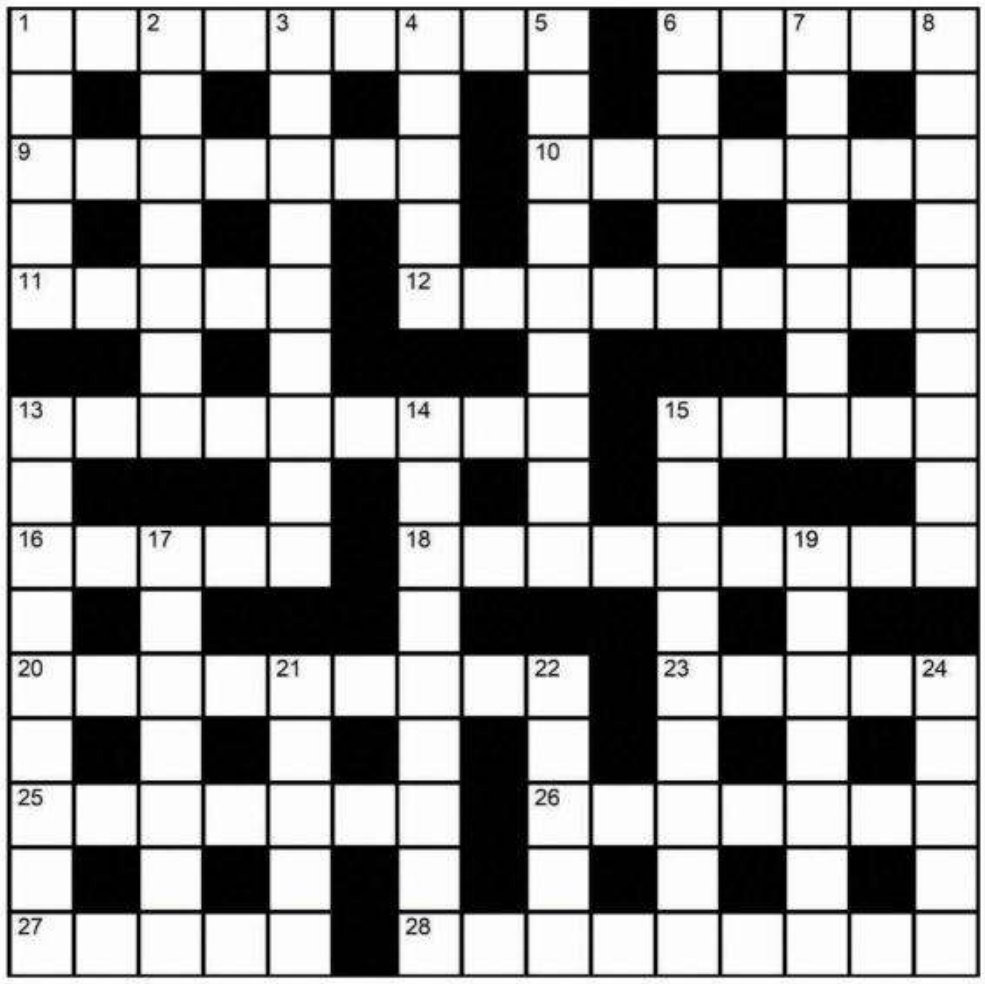
But mostly I'd like readers to enjoy learning about this remarkable woman. And if they feel inspired to try one of her delicious recipes, then all the better!

CROSSWORD

TEST YOURSELF WITH OUR HISTORICAL PUZZLE EVERY ISSUE

CROSSWORD No. 104

Test your history knowledge to solve our prize puzzle – and you could win a fantastic new book



Set by Richard Smyth

ACROSS

1 Mikhail ___ (1814–41), Russian poet and novelist (9)
6 Capital of French West Africa from 1902 (5)
9 John ___ (1737–93), noted signatory of the US Declaration of Independence (7)
10 Duncan ___ (1936–58), Manchester United footballer (7)
11 "God created man in his own ___" – Genesis 1:27 (5)
12 1969 film by Federico Fellini (9)
13 Area of ocean between China and the Korean peninsula, site of Korean 'peace zones' (6,3)
15 Senior monk, ranked lower than an abbot (5)
16 Pioneering Greek physician (born AD 129) (5)
18 1917 wartime song by George M Cohan (4,5)
20 City later known as Constantinople (9)
23 Peter Mark ___ (1779–1869), author of a famous thesaurus (5)
25 Altarpiece or screen in a church (7)
26 UK public order legislation of 1714 (4,3)
27 The principal Norse gods, collectively (5)
28 Dubai or Fujairah, perhaps (9)

DOWN

1 City sometimes known as the 'Chicago of Finland' (5)
2 'Lord ___', traditional Anglo-Scottish border ballad (7)
3 *A Room* ___, 1929 essay by Virginia Woolf (2,4,3)
4 People of Yorkshire, informally (5)
5 Capital of Laos from 1573 (9)
6 Donald ___ (1937–2000), first minister of Scotland (5)
7 City on the Arabian Sea, founded as Kolachi in 1729 (7)
8 Latin term for the recreation of the countryside within a city (3,2,4)
13 Legendary baseball catcher and coach (1925–2015) (4,5)
14 Curvature of the spine, named by 16 across (9)
15 Torquay-born satirist (1937–95) (5,4)
17 Biblical figure raised from the dead (7)
19 "Oh, to be in ___" – Robert Browning, 1845 (7)
21 Coastal city of Morocco, founded by Berber tribes (5)
22 Samuel ___ (1791–1872), US inventor and telegraph pioneer (5)
24 Sacred object or symbol (5)

CHANCE TO WIN

BOOK WORTH £12.99 FOR THREE WINNERS

The Treasures of Tutankhamun
by Garry Shaw

HOW TO ENTER

Post entries to **BBC History Revealed, February 2022 Crossword, PO Box 501, Leicester, LE94 0AA** or email them to **february2022@historyrevealedcomps.co.uk** by noon on **1 March 2022**.

By entering, participants agree to be bound by the terms and conditions shown in the box below. Immediate Media Co Ltd, publishers of *BBC History Revealed*, would love to keep you informed by post or telephone of special offers and promotions from the Immediate Media Co Group. Please write 'Do Not Contact IMC' if you prefer not to receive such information by post or phone. If you would like to receive this information by email, please write your email address on the entry. You may unsubscribe from receiving these messages at any time. For more about the Immediate Privacy Policy, see the box below.
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SOLUTION Nº 102

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The closing date and time is as shown under **How to Enter**, above. Entries received after that will not be considered. Entries cannot be returned. Entrants must supply full name, address and daytime phone number. Immediate Media Company (publishers of ***BBC History Revealed***) will only ever use personal details for the purposes of administering this competition, and will not publish them or provide them to anyone without permission. Read more about the Immediate Privacy Policy at www.immediatemedia.co.uk/privacy-policy. The winning entrants will be the first correct entries drawn at random after the closing time. The prize and number of winners will be as shown on the Crossword page. There is no cash alternative and the prize will not be transferable. Immediate Media Company London Limited's decision is final and no correspondence relating to the competition will be entered into. The winners will be notified by post within 28 days of the close of the competition. The name and county of residence of the winners will be published in the magazine within two months of the closing date. If the winner is unable to be contacted within one month of the closing date, Immediate Media Company London Limited reserves the right to offer the prize to a runner-up.
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LETTERS

SPOTLIGHT ON...
George Orwell's visions of dystopia
"Orwell loathed imperialism, rejected a bourgeois lifestyle, and longed – even fought – for socialist revolution"
BBC

After conducting his own research, reader Jude Sebastien de St Germain de Angulo now believes that the third series of *Blackadder* (*main*) was inspired by the life of Sir Edmund Nagle (*below left*), while another reader spotted a happy coincidence in our December 2021 issue (*below right*)

GETTY IMAGES X1, ALAMY X1

TRUTH V FICTION

Jonny Wilkes, like many others before him, recently went in search of the real life Blackadder (Q&A, August 2021) and sure enough, people with this name do exist. However, of the four *Blackadder* television series, only one, I believe, is truly historically accurate and based upon a real person. After a great deal of research and having consulted several experts, I've concluded that Blackadder the Third, ie Edmund Blackadder esquire, the close friend and butler of the Prince Regent, the future George IV, is although anachronistically jumbled based on the real Edmund who was indeed friend, equerry and then groom of the bedchamber to George Augustus Frederick Guelph. That Edmund is Admiral Sir Edmund Nagle KB KCB GCH Bart.

Nagle enlisted at the age of 13 and became a naval war hero. He was involved in the Falklands Crisis of 1770 [a diplomatic standoff between Great Britain and Spain over possession of the Falkland Islands] and met the future 'Sailor King' Prince William Henry, younger brother of George III, at the battle of Delaware Bay in 1782 [a naval engagement fought between Britain and the US during the American Revolutionary War].

Nagle was very closely associated with admirals Edward Pellew and John Warren, and was knighted for his capture of the French frigate HMS *Révolutionnaire* in the action of 21 October 1794, and, subsequently, could often be found in the hunting parties of George III.

During the Napoleonic Invasion Crisis of 1802 05, Nagle was commander of the Sussex Sea Fencibles and was based at Shoreham on Sea, adjacent to Brighton, where he made the acquaintance of George, Prince of Wales and thereafter was a regular at the Marine Pavilion. Rising through the ranks to admiral, Nagle was also aide de camp to the prince, and also commodore of the royal yacht the HMY *Royal George*; even before the demise of George III and the Prince Regent's ascension to the throne, Nagle was appointed to the role of groom of the bedchamber.

When George sailed to Ireland in the summer of 1821, Nagle was commodore of the *Royal George*, and, likewise, on the king's famous visit to Scotland during the summer of 1822.

There is a lot more to Edmund Blackadder esquire than what many people might be aware of, and much of it is quite shocking.
Jude Sebastien de St Germain de Angulo, New Zealand

HAPPY COINCIDENCE?

I'm sure I'm not the first or even the only one to notice that it was issue 101 that included the article about George Orwell (Spotlight, December 2021). I'm guessing that it wasn't just coincidence. Thank you, *BBC History Revealed*, for yet another fascinating edition.
Paula Aubrey, West Midlands

Editor replies:
Thank you for your comments, Paula. Much as I would like to take credit for such attention to detail, featuring George Orwell in issue 101 was, indeed, a happy coincidence!

NEXT ISSUE

··· ON SALE 17 FEBRUARY ···

THE ELIZABETHANS

Discover the story of England's so-called golden age – from the court of the Virgin Queen and victory over the Spanish Armada, to the sights, smells and sounds of everyday life

PLUS... WHAT IF GEORGE III HAD NEVER LOST AMERICA? THE INCREDIBLE LIFE OF 'CAT-MAN' LOUIS WAIN **A HISTORY OF LEFT-HANDED WRITING** IN A NUTSHELL: SUTTON HOO **SPOTLIGHT ON LEGENDARY LEXICOGRAPHER SAMUEL JOHNSON** AND MUCH MORE...

CROSSWORD WINNERS

The three lucky winners of the crossword from issue 101 are:

A Gilbert, Heaton
A Hudson, Ulverston
S Russell, Bexleyheath

Congratulations! You've each won a copy of *The Intrepidly Time-Travelling Great British History Map.*

Please note, due to Covid-19, we will be unable to post your prize until we are working in the office once more. Please bear with us!

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GETTY IMAGES

A KING AND A PRINCESS 1946

King George VI poses with his eldest daughter, Princess Elizabeth, who would ascend the throne of the United Kingdom upon his death six years later. February 2022 marks the platinum jubilee of Elizabeth II, who remains the longest-reigning monarch in Britain's history and the world's longest-serving head of state. Her reign has seen Britain face many challenges and changes, including the Troubles in Northern Ireland, the decolonisation of Africa, and the transformation of the British empire into the Commonwealth of Nations. For the majority of her reign the Queen had at her side her husband, Prince Philip, Duke of Edinburgh, who died in 2021 and was the longest-serving royal consort in history.

ALAMY

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